# Pioneer

### **DVD PLAYER**

# DV-S77 DV-S737

**Operating Instructions** 







#### **IMPORTANT**



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

### CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION:

TO PREVENT THE RISK OF ELECTRIC SHOCK, DONOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**WARNING:** TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

WARNING: BEFORE PLUGGING THE UNIT FOR THE FIRST TIME, READ THE FOLLOWING SECTION CAREFULLY. THE VOLTAGE OF THE AVAILABLE POWER SUPPULY DIFFERS ACCORDING TO COUNTRY OR REGION, BE SURE THAT THE POWER SUPPLY VOLTAGE OF THE AREA WHERE THIS UNIT WILL BE USED MEETS THE REQUIRED VOLTAGE (E.G., 230V OR 120V) WRITTEN ON THE REAR PANEL.

#### CAUTION

- Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
- The use of optical instruments with this product will increase eye hazard.

THE STANDBY/ON BUTTON IS SECONDARY CONNECTED AND THEREFORE DOES NOT SEPARATE THE UNIT FROM MAINS POWER IN STANDBY POSITION.

### **CONGRATULATIONS** ON YOUR PURCHASE OF THIS FINE PIONEER PRODUCT.

Pioneer is on the leading edge of DVD research for consumer products and this unit incorporates the latest technological developments.

We are sure you will be fully satisfied with the DVD player.

Thank you for your support.

Please read through these operating instructions so you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference.

• This player is not suitable for commercial use.

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

### **Features of This Player**

### Compatible with DVD, Video CD and CD formats

DVD, Video CD and CD discs that display the logos shown below can be played back on PIONEER DVD players. For more information on discs compatible with this player, refer to the table below.

Types of playable discs and their marks	Diameter/ Playable sides		Playback time
DVD VIDEO	DVD VIDEO		Digital audio Digital video (MPEG 2)
VIDEO	12 cm (5in.)/ single-sided	1 layer 2 layer	133 min. 242 min.
	12 cm (5in.)/ double-sided	1 layer 2 layer	266 min. 484 min.
	DVD VIDEO		Digital audio Digital video (MPEG 2)
	8 cm (3 in.)/ single-sided	1 layer 2 layer	41 min. 75 min.
	8 cm (3 in.)/ double-sided	1 layer 2 layer	82 min. 150 min.
VIDEO CD  COMPACT  DIGITAL VIDEO	VIDEO CD 12 cm (5 in.)/ single-sided		Digital audio Digital video (MPEG 1) Max. 74 minutes
	VIDEO CD single 8 cm (3 in.)/ single-sided		Digital audio Digital video (MPEG 1) Max. 20 minutes
	CD	$\bigcirc$	Digital audio
DIGITAL AUDIO	12 cm (5 in.)/ single-sided		Max. 74 minutes
DIGITAL AUDIO Recordable	CD single	(a)	Digital audio
COMPACT* DIGITAL AUDIO ReWritable	8 cm (3 in.)/ single-sided		Max. 20 minutes

The disc format logos shown above are found on disc labels or on disc jackets.

- To prevent malfunction, do not use an 8 cm (3 in.) adaptor (for CDs).
- Discs other than the ones indicated above cannot be played on this unit.
- DVDs that have incompatible region numbers, DVD-Audio, DVD-ROM, and CD-ROM cannot be played on this unit. The region number of the player can be found on the rear panel.

#### Playing recordable CDs

- Note that this unit cannot record onto recordable discs.
- This unit can play music-use CD-R and CD-RW discs. However, depending on the condition of the CD-Recorder and the disc, you may find that not all discs will play successfully. (For example, if the disc is scratched or dirty, or if the player's pickup lens is dirty.)

### 525 line digital progressive-scan component video output (NTSC)

Compared to standard interlaced video, progressive scan effectively doubles the amount of video information fed to your TV or monitor. The result is a stable, flicker-free image. (Check your TV/monitor for compatibility with this feature.)

For the very highest picture quality, try watching a movie on DVD-Video on a progressive-scan compatible TV.

The DV-S77/DV-S737 offers complete flexibility and compatibility with all types of AV equipment with composite video and S-Video outputs, as well as component video outs.

### Compatible with a wide range of DVD digital audio output formats





DVDs are recorded in one of four types of digital audio formats (as of October 1998). The digital audio output jacks of this player output Dolby Digital\*, DTS\*\*, MPEG, and linear PCM digital bitstreams.

This player has a function that converts Dolby Digital and MPEG audio formats into the linear PCM format. This allows playback of DVDs recorded in Dolby Digital and MPEG without the need for a decoder.

### Digital Noise Reduction PRO (Video Quality Enhancer)

This new type of **DNR** (Digital Noise Reduction) for encoding video (called VQE or Video Quality Enhancer) enables you to adjust the video settings on a more detailed and exact level. There are three possible settings to choose from. These include: **TV** (**CRT**), **Projector**, and **Professional**. This technology can remember which setting you've chosen and employ it at the proper time.

### TruSurround and Virtual Dolby Digital ( ) *TruSurround*

TruSurround\*\*\* uses technology that simulates multichannel surround sound using only two speakers. Virtual Dolby Digital works in conjunction with Dolby Digital audio sources to create a realistic surround sound. Virtual Dolby Digital is selected automatically when Dolby Digital sources are loaded.

- \* Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories. Confidential unpublished works, © 1992-1997 Dolby Laboratories. All rights reserved.
- \*\* "DTS" is trademarks of Digital Theater Systems, Inc.
- \*\*\*TruSurround and the ( ) symbol are trademarks of SRS Labs, Inc. in the United States and selected foreign countries. TruSurround technology is incorporated under license from SRS Labs, Inc.

### Easy setup and adjustment using on-screen menus

Press **SETUP** on the remote control to open the Setup screen and you'll find setting up and adjusting the system easy to do with on-screen menus conveniently organized and arranged. Additionally, on-screen information ((i)) appears to clarify the functions and explain the options available.



Answer a few questions and have all the necessary audio, video, and on-screen language adjustments set automatically by the player using the Setup Navigator (page 17).

### Smooth variable speed scanning in forward and reverse directions

This player incorporates technology that enables smooth playback of DVDs and Video CDs not only at different speeds but also in both forward and reverse directions. Control the direction and scanning speeds from 1/16 normal play speed to extremely quick scanning using the **MULTI DIAL** on the remote control (page 44).

#### Frame Search

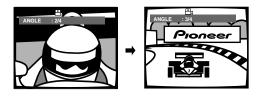
The NTSC system displays pictures at 30 frames/ second; PAL\* at 25 frames/second. With this DVD player you can locate and display a specific frame from anywhere on the disc.

\* Playback of PAL discs is not possible on the Taiwan model

#### Wide range of DVD viewing options

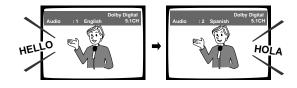
#### Multi-Angle (page 32)☆

You can view scenes from different camera angles when watching movies or other media with multiple angle playback available.



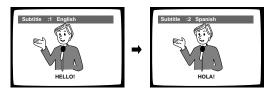
#### Multiple Languages (page 33)☆

You can select the language on when watching movies or other media that have multiple language and/or audio soundtracks recorded on them.



#### Multi-Language Subtitles (page 35)☆

You can select a subtitle language or turn subtitles off when watching movies or other media with subtitles available.



★This mark indicates this may not be possible with certain discs

#### **Energy-saving design**

This unit is designed to use less than 1 W of energy when this player is in standby mode.

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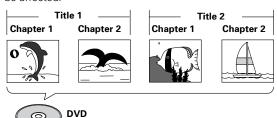
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# Differences in Disc Composition

#### **DVD**

DVDs are divided into units referred to as titles, and titles are divided into chapters. A DVD which contains a movie may have only one title with many or no chapter divisions. Karaoke DVDs may have many titles, assigning a title to each song on the disc. Menu screens do not belong to any title.

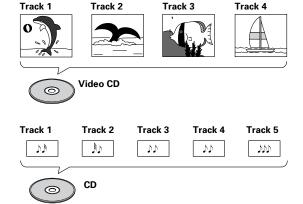
DVD player functions generally apply to titles on a DVD or chapters within a selected title. The player functions available may also vary from title to title, depending on the DVD. When DVDs have a unique title division, it should be noted that search and program functions may be affected.



#### Video CD/CD

Video CDs and CDs are divided into units referred to as tracks (Video CD tracks may also be referred to as scenes). One song generally corresponds to one track. Some tracks are further divided into units referred to as indexes. Video CDs with PBC (Playback Control) also contain menus recorded on the disc which enable easy access to the contents of the disc.

When played back on a DVD player, both Video CDs and CDs are considered to be a single title, regardless of the number of tracks.



# How to Proceed in This Manual

DVD is an incredible format that presents the highest quality digital audio and video available today. The amount of information that can be recorded onto a DVD disc is remarkable, allowing it to offer numerous functions and features available with no other format. Because using the DVD player and DVDs may be confusing at first, following the order below should help you get through the important stages of getting set up so you can start using your player as soon as possible.

#### Get familiar with the player.

Refer to the section "Before Using" on page 7 to confirm that all the accessories were included with the player. If you are new to DVD, it might be beneficial for you to go through the "Names and Functions" section starting on page 8 to get familiar with the parts and buttons on the main unit and remote control as they will be referred to throughout this manual.

There is also a list of terms that can be found on **page 60** if you are having trouble understanding some of the terminology associated with DVD.

#### Make the necessary connections.

No entertainment system seems to be set up exactly the same way. The "Making Connections" section starting on page 13 shows how video and audio connections may be made to suit your home entertainment system.

### Set up the necessary player menus.

Before you can begin to enjoy the benefits of the DVD format, it is first necessary to set up the player to output the video and audio information that corresponds to your system. The section "Setting Up the Player" starting on page 17 explains how to use the Setup Navigator, a function that automatically sets up the player corresponding to the answers given in a multiple-choice on-screen procedure. The Setup screen menus, described in the section starting on page 26, are also used in a number of other functions. Learning the procedure for operating these menus will make using this player much easier and more enjoyable.

#### Play a disc.

When all the connections and setups have been made, you are ready to play a DVD, Video CD, or CD with the player. The section "Getting Started Using Your DVD Player" starting on page 20 outlines the basic player operations.

#### Enjoy the many features available.

Once you are comfortable using the basic player functions, you are ready to take advantage of the various options DVD and this player have to offer. The section "Advanced Functions" starting on page 38 describes how to use the features available on many DVDs.

### **Before Using**

### **Checking Accessories**

Please confirm that the following were received with the player.

#### Audio cord



#### Video cord



#### Power cord

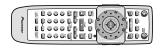
<Taiwan model only>



<Except for Taiwan model>



#### Remote control unit



#### AA/R6P dry cell batteries



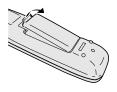
 When disposing of used batteries, please comply with governmental regulations or environmental public instruction's rules that apply in your country or area.
 H048 En

Operating instructions (this manual)

### **Preparing the Remote Control**

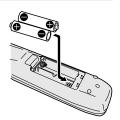
### Inserting batteries into the remote control

1 While pushing the tab on the battery compartment cover toward the center of the remote, pull out in the direction indicated by the arrow.

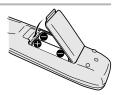


#### 2 Insert batteries.

Make sure to match the plus (+) and minus (-) polarity guides on the batteries with the marks inside the battery compartment.



#### 3 Close the cover.

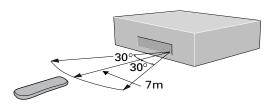


#### Notes

- Do not mix old and new batteries.
- When replacing batteries, use all new batteries.
- When not using the remote control for a long period of time (over 1 month), remove the batteries to avoid possible damage from battery corrosion. If battery leakage occurs, wipe the battery liquid from the battery component, then insert new batteries.

#### Remote control operation

When operating the remote control, point it at the remote sensor ( ) located on the player's front panel. The remote control can be used up to 7 m from the player and within a 30° angle on each side of the sensor.



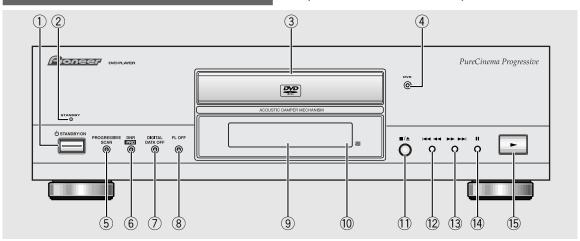
#### Notes

- Exposing the remote sensor to direct sunlight or strong light may cause faulty operation.
- If the **CONTROL IN** jack on the player's rear panel is connected to the **CONTROL OUT** jack of another component, point the remote control at the other component to operate the player. Operation will not be possible when pointed at this player (page 16).

# Names and Functions

### Front Panel

#### (Illustration is Taiwan model)



#### 1 & STANDBY/ON button (Taiwan model only)

Press to switch the player on or to put in standby (pages 20, 23).

#### POWER switch (Except for Taiwan model )

Press to switch the player on or off (pages 20, 23).

#### (2) STANDBY indicator

Lights when the player is in standby, using a minimum amount of power to maintain system settings (pages 20, 23).

#### (3) Disc tray

When loading a disc, place discs in the disc tray with the label side facing up (pages 20, 23).

#### 4 DVD indicator

Lights when a DVD disc is loaded.

#### 5 PROGRESSIVE SCAN indicator

Lights when unit is outputing 525 line progressive scan (non-interlaced) video.

#### (6) DNR PRO indicator

Lights when unit is set to **DNR PRO** (**YNR** and/or **CNR**) (page 41).

#### 7 DIGITAL DATA OFF indicator

Lights when unit is set to Digital Out Off (page 27).

#### (8) FL OFF indicator

Lights when the fluorescent (FL) display is switched off.

#### 9 Display window

Displays system information (page 9).

#### (10) Remote sensor

Point the remote control toward the remote sensor to operate the player (page 7).

#### (1) ■/≜ (stop/open/close) button

Press to open and close the disc tray (pages 20, 23). Press to stop playback. Pressing once enables playback to resume from a point shortly before the location where it stopped. During playback, press twice to open the disc tray (page 23).

#### (12) I◀◀ ◀◀ (reverse) button

Press to go back to previous title/chapters/tracks. Press and hold to perform reverse playback scanning (pages 22).

#### (13) ►► ►► (forward) button

Press to advance to title/chapters/tracks. Press and hold to perform fast-forward scanning (page 22).

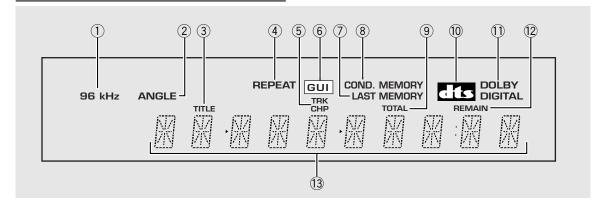
#### (14) II (pause) button

Press during playback to pause. Press again to resume playback (page 43).

#### (15) ► (play) button

Press to start or resume playback (pages 20, 23).

### **Display Window**



#### 1) 96 kHz indicator

Indicates a DVD disc containing high-sampling rate (96 kHz) audio is playing.

#### 2 ANGLE indicator

Indicates Multi-Angle playback is in progress (page 32).

#### (3) TITLE indicator

Indicates a title number is being displayed.

#### 4 REPEAT indicator

Indicates that the Repeat function is on and that the current title, chapter, or track is being repeated (page 46).

#### (5) TRK/CHP indicator

Indicates a track/chapter number is being displayed.

#### 6 GUI indicator

Indicates an player menu operation is being performed (page 17).

#### (7) LAST MEMO indicator

Indicates the Last Memory location is recorded in memory for the currently loaded DVD or Video CD (page 51).

#### (8) COND. MEMORY indicator

Indicates that Condition Memory settings are memorized for the currently loaded DVD (page 53).

#### (9) TOTAL indicator

Indicates that the disc in the player is stopped and **DISPLAY** has been pressed (page 54).

#### 10 DTS indicator

Indicates DTS audio playback.

#### 11 DOLBY DIGITAL indicator

Indicates Dolby Digital audio playback.

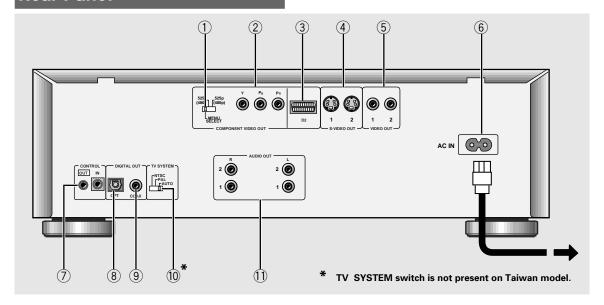
#### (12) REMAIN indicator

Indicates that the remaining playback time of a title or chapter/track is being displayed.

#### (13) Counter display

Displays the playback mode, type of disc, title and chapter/track numbers, playback time, etc.

#### **Rear Panel**



#### 1 COMPONENT VIDEO OUT switch

You only need to set this switch if you're using an NTSC TV/monitor connected via the component video outputs of this player. This player can output NTSC video as a standard interlaced signal (the 525i(480i) setting), or as a non-interlaced, or progressive scan signal (the 525p(480p) setting). If your TV/monitor is compatible with progressive scan video, set this switch to either 525p(480p) or MENU SELECT. When set to MENU SELECT, you can use the on-screen Setup menu to switch between progressive and interlaced video output. If your TV/monitor is not progressive scan compatible, you will not be able to see any picture if this player is set to output progressive scan video. In this case, set the switch to 525i(480i) to restore the picture.

#### ② COMPONENT VIDEO OUT jacks (Interlace/Progressive-scan)

If your TV or monitor has component video inputs, you can produce a higher quality picture on your TV or monitor by connecting to the component video outputs on this unit (page 15).

#### ③ D2 jack

#### (Interlace/Progressive-scan)

If your TV or monitor has D video input, you can produce a higher quality picture on your TV or monitor by connecting to the D2 video output on this unit (page 15).

#### 4 S-VIDEO OUT jacks

If your TV or monitor has an S-video input, clear picture reproduction is possible by connecting the player to your TV or monitor via the S-Video jack (page 15).

You can switch between **[S1]** and **[S2]** S-video output from the Setup menu (page 31).

amplifier or receiver with video input capability. (pages 13, 15).

#### 6 AC IN power cord connection terminal

Use to connect the power cord to the wall outlet (page 13).

#### **ONTROL IN/OUT jacks**

Use to connect this player to another component bearing the Pioneer mark. This lets you control this unit as though it were a component in a system. Player operations are then performed by pointing the remote control at the component that the player is connect to (page 16).

#### 8 DIGITAL OUT jack (optical (OPT))

Use to output the digital audio signal recorded on discs. You can output the digital signal via either optical output jack to an AV amplifier or receiver (page 14).

#### 9 DIGITAL OUT jack (coaxial (COAX))

Use to output the digital audio signal recorded on discs. You can output the digital signal via either coaxial output jack to an AV amplifier or receiver (page 14).

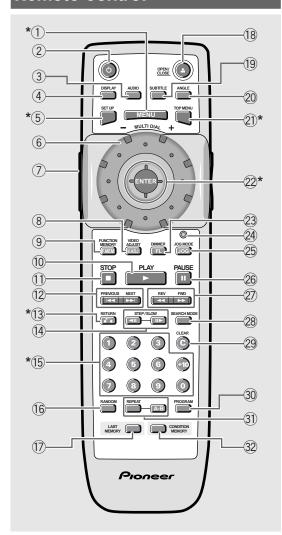
### 10 TV SYSTEM switch\* (except for Taiwan model)

Use to change the TV signal mode to either **PAL** or **NTSC** according to the type of TV and disc to be used. When the switch is in the **AUTO** position, the player outputs the format on the disc as is (**page 16**).

#### (1) AUDIO OUT jacks

Use to output two-channel audio (analog) to the audio stereo inputs on a TV or stereo amplifier. If you are connecting to a receiver that has both digital and analog input jacks for DVD player connection, it may be beneficial to make both connections (pages 13, 14).

#### **Remote Control**



(Buttons indicated with \* are used for menu operation.)

#### 1 MENU button\*

Use to display or close the DVD menu screen (page 21).

#### ② 🖒 (standby/on) button

Press to switch the player on or to put in standby (pages 20, 23).

#### (3) AUDIO button

Press repeatedly to select one of the audio languages and/or audio formats programmed on a DVD (page 33, 34).

For Video CD and CD, each press changes the audio output as follows.

→ Stereo → 1/L (Left) → 2/R (Right) —

#### (4) DISPLAY button

Press during playback to display statistical disc information. Press repeatedly to display different information (page 54).

#### (5) SETUP button\*

Press when the player is in either play or stop mode to open and close the Setup screen (pages 17, 24).

#### 6 MULTI DIAL

Use to control the rate of playback according to the speed at which **MULTI DIAL** is turned. When the Jog Mode is on, frame by frame scanning in both forword and reverse directions is possible (**page 44**).

#### 7 Light button (side panel)

Use to illuminate the main operation buttons on the remote control. When pressed, the buttons light for approximately 6 seconds. This function is convenient for locating the command buttons when the room is dark.

#### (8) VIDEO ADJUST (V.ADJ) button

Various attributes of the video presentation can be adjusted to suit the program type or personal preferences. Press **VIDEO ADJUST (V.ADJ)** to display the on-screen options (page 41).

#### 9 FUNCTION MEMORY (F.MEM) button

Press to incorporate a menu item into a shortcut list that is stored in memory and can be called up at any time (page 52).

#### **10** PLAY **▶** button

Press to start disc playback (pages 20).

#### **11** STOP ■ button

Press to stop playback. Pressing once enables playback to resume from a point shortly before the location where it was stopped. Pressing twice causes the disc to return to the beginning of the disc when playback starts again (page 20).

#### 12 PREVIOUS I◄◄/NEXT ▶► buttons

During playback, press **PREVIOUS** I ◄ to go back to a previous chapter/track and **NEXT** ► I to advance to the next chapter/track (page 22).

#### 13 RETURN 5 button\*

Use to go one menu back (current settings are maintained). Use **RETURN** & when you do not want to change the option setting in a menu (pages 17, 21 and 25).

#### (14) STEP/SLOW **◄II/II▶** buttons

Press **STEP/SLOW** II► during playback to view slow playback. In pause mode, press **STEP/SLOW** II► to advance DVDs and Video CDs frame by frame and **STEP/SLOW** III to back up a DVD a few frames at a time (page 43).

#### (15) Number buttons (1-9, 0, +10)\*

Use to perform direct title and chapter/track searches, and to input numerical values.

#### (16) RANDOM button

Press to play chapters/tracks in random order (page 47).

#### (17) LAST MEMORY button

You can resume DVD or Video CD playback from the point you last watched even if the disc is removed from the player. Press **LAST MEMORY** during playback to set a Last Memory point. When you want to resume playback of that disc, press **LAST MEMORY** in the stop mode and playback starts from the memorized point. Last Memory locations can be stored for up to 5 DVDs and 1 Video CD (**page 51**).

#### 18 OPEN/CLOSE ▲ button

Press to open or close the disc tray (pages 20, 23).

#### 19 SUBTITLE button

Press repeatedly to select one of the subtitle languages programmed on a DVD or to turn the subtitles off (page 35).

#### 20 ANGLE button

Some DVDs are recorded with various camera angle playback options. Press **ANGLE** repeatedly to display different camera angles (**page 32**).

#### 21) TOP MENU button\*

Press to call up the top menu programmed on the DVD. Depending on the DVD, the top menu may be identical to the DVD menu (page 21).

#### (22) Cursor control joystick\*

Use to move the cursor through the options on menu screens and to change settings).

#### **ENTER button\***

Press to implement settings selected with the cursor control joystick or to set items highlighted in a menu.

#### 23 DIMMER (FL) button

Press to change the brightness of the FL display and disc illumination in four steps: maximum brightness, medium brightness, minimum brightness, and off. When the FL display is turned off, the **FL OFF** indicator on the front panel lights.

#### 24 JOG MODE indicator

Lights red when the player is in the Jog Mode (page 44)

#### 25 JOG MODE (JOG) button

Press to put the player in the Jog Mode. When this mode is on, rotate MULTI DIAL clockwise to scan frame by frame in the forword direction and counterclockwise to scan frame by frame in the reverse direction (page 44).

#### 26 PAUSE II button

Press to pause playback of a disc. Press again to resume playback (page 43).

### ② REV ◄◄/FWD ►► (fast reverse/ fast forward) buttons

During playback of DVD and Video CD, press **FWD** ►► to perform fast forward scanning. Press **REV** ◀◀ to perform fast reverse scanning of DVD and Video CD. When a CD is loaded, audio scanning is performed (page 22).

#### 28 SEARCH MODE button

Press to perform a title, chapter/track, elapsed time search or time & frame search (page 45).

#### 29 CLEAR button

Works in conjunction with a number of player functions. Use to cancel repeat and random playback, and to edit programs (pages 35, 46, 48, 49, 51).

#### 30 PROGRAM button

You can program titles, chapters, or tracks to play back in a desired order. Programs can be a maximum of 24 steps. Additionally, DVD programs for up to 24 discs can be stored in the player's memory for future use (page 48).

#### (31) REPEAT button

Press once to repeat playback of current chapter/ track. Press twice to repeat playback of current title (page 46).

#### A-B button

Press at the beginning and end of the section you want to repeat or to mark a location you want to return to (page 46).

#### 32 CONDITION MEMORY button

You can store in memory the settings for up to 15 DVDs. Press **CONDITION MEMORY** during DVD playback to memorize the settings (**page 53**).

# Making Connections

### **Connecting Your DVD Player**

Unlike any other audiovisual media format, DVD offers a wide array of audio and video output options which allows playback to be enjoyed in any number of system configurations from a standard TV with stereo audio input to a home theater system with a TV or monitor and full surround sound capabilities.

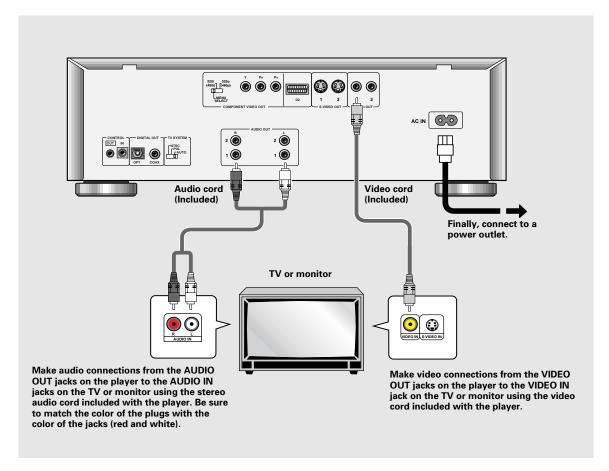
#### **Connection Guide**

The illustration on this page shows the basic setup using the audio and video cords included with this player. Use this illustration as a guide to setting up your home system.

An explanation of each type of audio and video connection available can be found on pages 14 to 16. To determine the best audio and video connection setup for your system, refer to the manuals supplied with the components you are making connections to. In addition to making physical connections to your TV or monitor, it is also necessary to assign the TV screen size. You can use the [Setup Navigator] in the Setup screen General menu to set whether you are using a wide screen or standard size TV or monitor (page 18). Additionally, you can use the [TV Screen] setting in the Setup screen Video menu (page 29).

#### Notes

- When making connections to this unit or when changing connections, check that the unit is off by pressing O STANDBY/ON (or POWER) and unplug the power cord from the power outlet.
- The video output on this player uses copy protect circuitry to prevent the video playback on DVDs from being copied.
   If you connect the player to a TV via a VCR, or record and play back the contents of a disc with a VCR, the playback picture may not be normal.



#### **Audio Connections**

This player features two digital (optical and coaxial) and also analog audio output formats.

#### **Digital Audio Connections:**

You can enjoy the digital audio recorded on discs from both optical digital and coaxial digital output jacks.

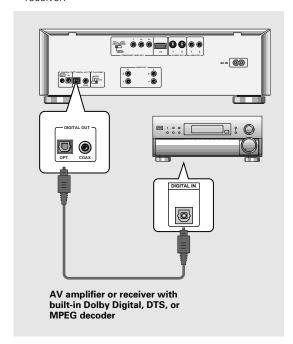
When making digital audio connections, do not make connections from both the coaxial and optical digital outputs to the same component.

When a DVD recorded in Dolby Digital, DTS, or MPEG is loaded, noise will be output if you have made connections via the digital audio jacks to a receiver or amplifier that cannot decode a Dolby Digital, DTS, or MPEG digital bitstream. In this case, be sure to set up the Setup Navigator audio settings to best reflect the type of system you are using (page 19). Additionally, the digital audio settings can be adjusted manually in the Setup screen **Audio 1** menu (pages 26–27).

#### **DIGITAL OUT (Optical)**

The digital signal is transmitted as light pulses through a fiber-optic cable.

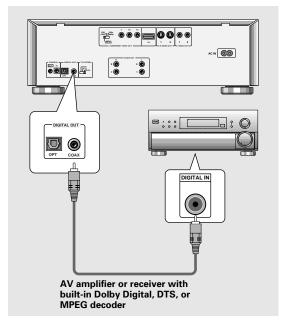
- Use to connect to an AV amplifier or receiver with built-in Dolby Digital, DTS, or MPEG decoder.
- Use a fiber-optic cable (not supplied) to connect the DIGITAL OUT OPT (digital optical output) on the player to the digital optical input on an AV amplifier or receiver.



#### **DIGITAL OUT (Coaxial)**

The digital signal is transmitted electronically through a coaxial cable.

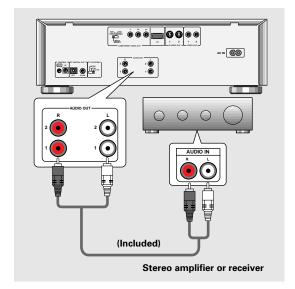
- Use to connect to an AV amplifier or receiver with built-in Dolby Digital, DTS, or MPEG decoder.
- Use a coaxial cable (not supplied) to connect the DIGITAL OUT COAX (coaxial digital output) on the player to the coaxial digital input on an AV amplifier or receiver.



#### **Analog Audio Connection:**

#### **AUDIO OUT**

- Make analog audio connections to a stereo amplifier or receiver.
- Analog audio connections can also be made to a TV or monitor with stereo input jacks.
- Use the supplied audio cord to connect the AUDIO OUT on the player to the audio input on the stereo amplifier or receiver.
- When making analog audio connections, be sure to match the color of the plugs with the color of the jacks (red and white).



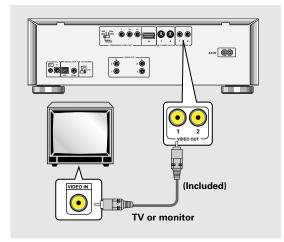
#### **Video Connections**

This player features S-video, composite, and component video output possibilities.

Check the manual supplied with your TV or monitor to determine the best possible connection for your system. In addition to making physical connections to your TV or monitor, it is also necessary to assign the TV screen size. You can use the [Setup Navigator] in the Setup screen General to set whether you are using a wide screen or standard size TV or monitor (page 18). Additionally, you can use the [TV Screen] setting in the Setup screen Video menu (page 29).

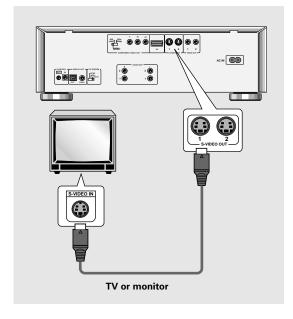
#### **VIDEO OUT**

- Make composite video connections to a standard TV or monitor with a video input jack.
- Use the supplied video cable to connect one of the VIDEO OUT jack on the player to the video input on the TV or monitor.
- Be sure to match the color of the plug with the color of the jack (yellow).



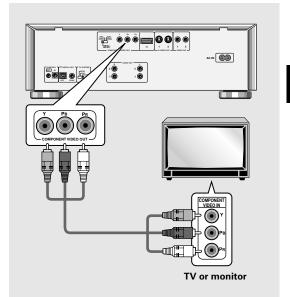
#### S-VIDEO OUT

- Make S-video connections to a TV or monitor with S-video input to produce a high quality video image.
- Use an S-video cable (not supplied) to connect the S-VIDEO OUT jack on the player to S-video input on the TV or monitor.



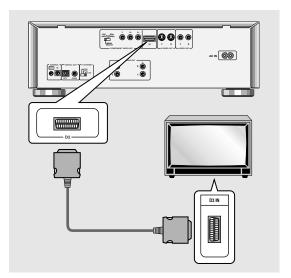
#### **COMPONENT VIDEO OUT**

- Make component video connections to a TV or monitor with component inputs to produce a higher quality video image.
- Use a component video cable or 3 video cords (not supplied) to connect the **COMPONENT VIDEO OUT** jacks on the player to the component jacks on the monitor.



#### Component Video Out (D2)(NTSC)

If your TV has a **D VIDEO INPUT** jack, you can use a D Video cable (not supplied) to connect it to the D2 output on this unit.



#### About D Video

The designation of a D Video jack indicates the kinds of signal it is compatible with.

D Video	Compatibility designation	
D2	525i(480i), 525p(480p)	
D1	525i(480i),	

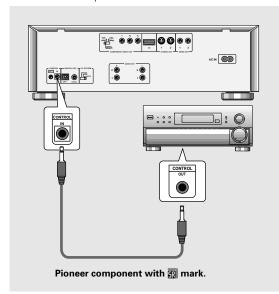
i = interlaced

p = progressive scan (non-interlaced)

### System Control Connections

Using a commercially available cord with a mini plug (3.5 mm dia. with no resistance) to connect this player's **CONTROL IN** jack to the **CONTROL OUT** jack of another PIONEER component bearing the mark, you can control the player as though it were a component in a system (system control).

- If you connect for system control, you cannot operate the player directly. Point the remote control unit at the component (AV amplifier, etc.) connected to the CONTROL OUT jack to operate.
- When controlling as a system, be sure to make a connection to the amplifier using an audio or video cord, even when using only digital components.
- For details, refer to the operation manuals of the connected components.



# TV SYSTEM switch (except for Taiwan model)

Video output changes as follows according to the playback disc's recorded format.

NTSC → PAL, PAL → NTSC conversion is possible on Video CDs. PAL → NTSC conversion is not possible on DVDs. When the **TV SYSTEM** switch is set to the **AUTO** position, the disc's format will be output as is. When a CD or disc is not loaded, the previous video output format will be selected.



Disc Output format				
Туре	Format	Position of TV SYSTEM switch		
		NTSC	PAL	AUTO
DVD	NTSC	NTSC	MOD. PAL	NTSC
	PAL		PAL	PAL
Video CD	NTSC	NTSC	MOD. PAL	NTSC
	PAL	NTSC	PAL	PAL
CD, No disc		NTSC	PAL	NTSC or PAL

#### About MOD. (Modulation) PAL

SHRINK

Most models of the newly developed countdown PAL TV system detect 50 Hz (PAL)/60 Hz (NTSC) and automatically switch vertical amplitude, resulting in a display without vertical shrinkage.

If your PAL TV does not have a V-Hold control, you
may not be able to view NTSC disc because the
picture may roll. If the TV has a V-Hold control, adjust
it until the picture stops rolling. On some TVs, the
picture may shrink vertically, leaving black bands at
the top and bottom of the screen. This is not a
malfunction; it is caused by the NTSC → PAL
conversion.

# Setting Up the Player

### **Using the Setup Navigator**

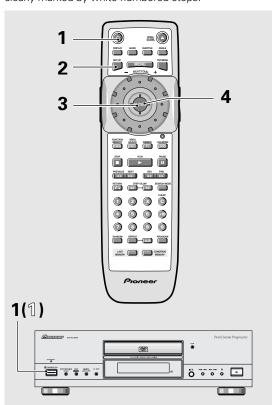
The Setup Navigator has been designed to simplify the process of getting the DVD player ready to perform. Designed as a series of on-screen multiple-choice questions, the Setup Navigator automatically sets the audio, video, and language settings according to how the questions are answered. Once this procedure is complete, it will be possible to begin using the DVD player to enjoy DVDs.

The procedure on this page describes the operations necessary to function within the Setup Navigator screens. A detailed description of the contents of each question that appears on the screen can be found on the following pages.

#### When setting up for the first time

Some DVDs start playing automatically when loaded in the player. Because the Setup Navigator cannot be used if a disc is playing, it is recommended to set up the player using the Setup Navigator before loading a DVD for the first time. If a DVD has been loaded, be sure to press **STOP** before proceeding.

Procedures in this section use the DV-S77 (Taiwan model). Differences in procedures of other models are clearly marked by white numbered steps.



- 1 Press O STANDBY/ON on the front panel (O on the remote control). (Taiwan model)
- Press POWER on the front panel. (Other models)

#### 2 Press SETUP.

When **SETUP** is pressed for the first time, the following screen appears. Though the Setup Navigator may be used more than once, this screen only appears the first time **SETUP** is pressed.



### 3 Move the cursor control joystick up or down to make a selection.

- If you are going to use the Setup Navigator, it is not necessary to change the setting on the first screen. Please proceed to the next step.
- If you do not want to set up the player using the Setup Navigator, use the cursor control joystic down to select [Auto Start Off] at this time.

The Setup Navigator function may still be used at a later time in manual Setup screen menu operation (page 24).

#### 4 Press ENTER.

The selection is entered and the next Setup Navigator screen appears.

Use steps **3** and **4** as a basis for entering selections on the all of the Setup Navigator screens described on the following pages.

#### To change the answer to a prior question

Move the cursor control joystick left to return to previous screens. Please note, however, that you cannot go forward by moving the cursor control joystick right, so it will be necessary to answer all the questions that occur after the screen that was returned to.

#### To exit the Setup Navigator

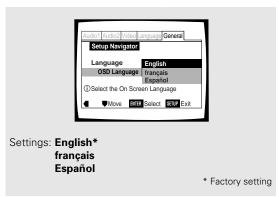
Press **SETUP** while on any of the screens to exit the Setup Navigator. Please note that if the Setup Navigator is exited before all the questions are answered, no settings are changed.

#### To return to the Setup screen

Press **RETURN**. The Setup Navigator is exited and the Setup screen **General** menu screen appears. Please note that no settings are changed if **RETURN**. is pressed before the Setup Navigator is finished.

### Setting the OSD Language (On-Screen Display Language)

The **[OSD Language]** screen establishes the OSD language, or on-screen display language, which refers to the language that is used by the player in menus and on-screen messages. Additionally, the language that is established at this setting will also be used for the default audio and subtitle language.



#### Notes

- The languages that can be selected may be different from those shown above.
- In addition to setting the [OSD Language], the audio and subtitle language are also set at this time. If you wish to change the audio or subtitle language to a different language, make changes in the Setup screen Language menu [Audio Language] and [Subtitle Language] as needed (page 33, 35).

#### Setting the TV screen size

The **[TV Type]** screen establishes the size, or more appropriately the width to height ration of your television or monitor. The width-to-height ratio of conventional TVs is 4:3, while the width-to-height ratio of wide screen and high-definition TVs is 16:9. This width-to-height ratio is called the aspect ratio.



Settings: Widescreen (16:9)\*
Standard (4:3)

\* Factory setting

#### Note

There are two screen formats that can be used to display wide-screen format DVDs: letter box and pan & scan. When [Standard (4:3)] is selected in the Setup Navigator, the letter box screen format is automatically selected. To switch the preference to the pan & scan format, make changes in the Setup screen Video menu [TV Screen] setting (page 29).

### Setting digital audio connections to an AV amplifier or decoder

The [Digital Jack] screen establishes whether digital connections have been made to an AV amplifier, receiver, or external decoder. As there are numerous options available, please refer to the instructions supplied with the component the player is connected to determine what digital audio formats can be decoded. If you have made no digital connections, select [Not Connected].



Settings: Dolby Digital\*

Dolby Digital/DTS
Dolby Digital/MPEG
Dolby D/DTS/MPEG

PCM

**Not Connected** 

\* Factory setting

### Setting compatibility with 96 kHz output

The [96 kHz PCM Audio] screen establishes whether or not the AV component the player is connected to is capable of processing an audio signal with a sampling rate of 96 kHz. This screen only appears if connections have been made to an external AV component as determined in previous screens.



Settings: No\*

Select if the connected AV component cannot process an audio signal with a sampling rate of 96 kHz.

#### Yes

Select if the connected AV component can process an audio signal with a sampling rate of 96 kHz.

#### **Don't Know**

Select if you are uncertain whether the connected AV component can process an audio signal with a sampling rate of 96 kHz.

\* Factory setting

#### Confirming the settings

The **[Exit Setup Navigator]** is the final screen in the Setup Navigator.



#### Settings: Save Changes\*

Select to have the player make all of the necessary audio, video and language settings according to your responses in the Setup Navigator.

#### **Delete Changes**

Select to exit the Setup Navigator without changing any of the system settings.

#### Start Again

Select to return to the **[OSD Language]** screen of the Setup Navigator and do the settings again.

\* Factory setting

#### To exit the Setup screen

When you have completed setting up the player using the Setup Navigator or if you exit the Setup Navigator, the Setup screen **General** menu appears. Press **SETUP** to close the Setup screen.

### To change other player settings in the Setup screen menus

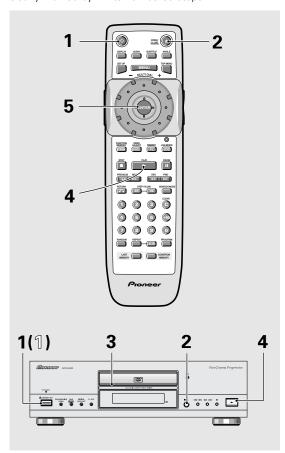
The procedure for changing the settings in the Setup screen menus is described on page 24.

# Getting Started Using Your DVD Player

# Playing DVDs, Video CDs and CDs - DVD/Video CD/CD

Before you can start to enjoy the digital audio and video on DVDs, be sure that you have either performed the Setup Navigator procedure described in the previous section or made the necessary settings in the Setup screen menus as outlined in the next section to set up the player to correspond to your home system. Having made these settings, you are now ready to start using the player to enjoy DVDs, Video CDs, and CDs.

Procedures in this section use the DV-S77 (Taiwan model). Differences in procedures of other models are clearly marked by white numbered steps.

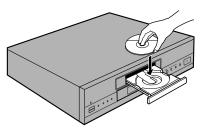


- 1 Press O STANDBY/ON on the front panel (O on the remote control). (Taiwan model)
- Press POWER on the front panel. (Other models)
- 2 Press OPEN/CLOSE (■/≜ on the front panel).

The disc tray comes out.

#### 3 Load a disc.

• Load a disc with the label side facing up, using the disc tray guide to align the disc.



#### 4 Press PLAY ► (► on the front panel).

- The disc tray closes, and playback begins.
- Depending on the disc, a menu may be displayed. If a menu is displayed, proceed to step 5.
- 5 Select the item you want to view.
  - . When a DVD is loaded:

Select the item with the **cursor control joystick** or the **number buttons** then press **ENTER**.

• When a Video CD is loaded:

Use the number buttons to select the item.

#### Notes

- Noise is output if you make digital audio connections to a receiver or amplifier that does not have a built-in decoder. Check that the digital audio output format selected in the Audio 1 menu corresponds to the audio components you have made connections to (pages 26-27).
- The TV screen size is factory set to present the wide screen format (16:9 aspect ratio). If you have a standard TV screen (4:3 aspect ratio), this setting can be changed to match your TV screen size in the Video menu (page 29).

#### When an operation is prohibited

There are times when you are using the player and attempt to perform an operation, but for some reason it cannot be performed. When this occurs, one of the two following icons appears on the screen.



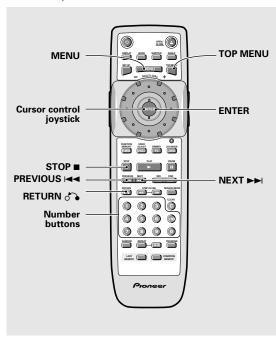
The operation is prohibited by the player.



The operation is prohibited by the programming on the disc.

#### When a menu screen is displayed

Menu screens are displayed for DVDs that have menu screens or Video CDs that include Playback Control (PBC). DVDs often contain extra information that can be accessed in the DVD menu and sometimes makes navigating DVD menu screens as enjoyable as watching the feature presentation.



Example: When a DVD that has menu screens is loaded



**Example:** When a Video CD that has Playback Control is loaded



### To open or return to the DVD or Video CD menu screen

Although this differs depending on the disc, pressing **MENU**, **TOP MENU**, or **RETURN** during DVD playback or **RETURN** during Video CD playback displays the menu screen. Refer to the DVD or Video CD disc jacket and accompanying documentation for more information.

#### To navigate a menu screen

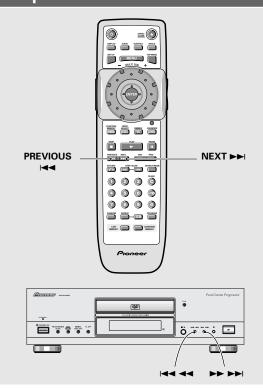
- Although individual DVD titles may differ, when a menu screen is displayed, use the cursor control joystick and ENTER on the remote control. The cursor contro joystick is used to move around the options on the screen and ENTER is used for selection.
- Occasionally, the number buttons may also be used to make selections. If this is possible, using number buttons serves to directly select an option on a menu screen. Only number buttons are used to make selections on Video CD menu screens.
- When the Video CD has more than one menu, pages can be returned to or advanced to with PREVIOUS
   I◄◄ or NEXT ►►I.

### To play Video CDs without displaying menu screens

Video CDs with Playback Control (PBC) display a menu screen when play is started. It is possible, however, to play back Video CDs without displaying menu screens.

When a Video CD with PBC is loaded, press **STOP**, and then the **number button** of the track you want to play.

### Chapter (Track) Skip Forward/ Skip Back - DVD/Video CD/CD



### Advancing to the next chapter (track)

#### Press NEXT ▶▶। (▶▶ ▶▶। on the front panel).

- Press to skip forward to the next chapter (track).
- You can advance more than one chapter (track) forward by pressing and holding NEXT ►►I and releasing when the desired chapter (track) number appears in the display.

**Note:** Press and hold **▶▶ ▶►**I to start scanning.

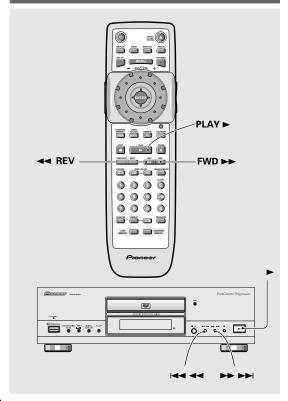
### Skipping back to the previous chapter (track)

### Press PREVIOUS |◄◄ (|◄◄ ◄◄ on the front panel).

- Press once to skip back to the start of the chapter (track) currently playing.
- Press twice to skip back to the start of the previous chapter (track).
- You can skip back to previous chapters (tracks) by pressing and holding PREVIOUS |◄◄ and releasing when the desired chapter (track) number appears in the display.

**Note:** Press and hold I◀◀ ◀◀ to start scanning.

# Forward and Reverse Scanning - DVD/Video CD/CD



#### Fast forward scanning

### Press and hold FWD ►► (►► ►► on the front panel) during playback.

- Release FWD >> when you reach the desired location. Normal playback resumes.
- On DVDs, when the flashing "SCAN 2" on the screen changes to a flashing "SCAN 3", fast forward scanning will continue even if the button is released.
  On Video CDs and CDs, the scanning speeds are "SCAN 1" and "SCAN 2". When the desired location has been reached, press PLAY ▶.
- Variable speed scanning is also possible using the MULTI DIAL on the remote control (page 44).

#### Fast reverse scanning

### Press and hold REV ◄◄ (I◄◄ ◄◄ on the front panel) during playback.

- Release **REV** ◀◀ when you reach the desired location. Normal playback resumes.
- On DVDs, when the flashing "SCAN 2" on the screen changes to a flashing "SCAN 3", fast reverse scanning will continue even if the button is released.
  On Video CDs and CDs, the scanning speeds are "SCAN 1" and "SCAN 2". When the desired location has been reached, press PLAY ▶.
- Variable speed scanning is also possible using the MULTI DIAL on the remote control (page 44).

# Resuming playback from where you stopped - DVD/Video CD

Use the resume feature to restart playback from the point that the disc was stopped last time.

#### Press STOP ■ once.

The display shows **"RESUME"** and the stop position is memorized.

- The resume position remains memorized as long as the disc is in the player — even if you switch the power off.
- Pressing STOP twice causes the disc to return to the beginning when PLAY ► is pressed again. The display shows the disc type (DVDs or Video CDs).

#### Press PLAY ▶.

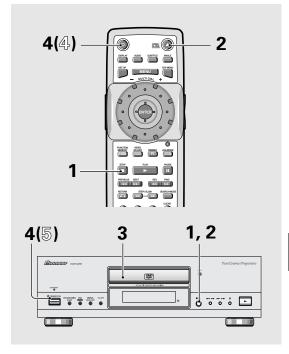
Playback starts from the resume position.

#### Notes

- The actual restart position may be slightly before or after the resume position.
- If you want to remove the disc, but still want to resume playback from the last stopped position, use the LAST MEMORY feature instead (page 51).

### Stopping Playback and Switching Power Off

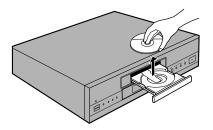
- DVD/Video CD/CD



- 1 Press STOP (■/≜ on the front panel). Playback stops.
- 2 Press OPEN/CLOSE (■/≜ on the front panel).

The disc tray comes out.

3 Remove the disc.



- 4 Press © STANDBY/ON on the front panel (© on the remote control). (Taiwan model)
  The disc tray goes back in.
- Press on the remote control. (Other models)

The disc tray goes back in.

Press POWER on the front panel to turn the player's power off. (Other models)

# Adjusting Audio and Video Settings

# Using the Setup Screen Menus

The procedure on this page describes how to operate the menus on the Setup screen. These menus are used to set and adjust a number of system settings. The various functions that can be adjusted are covered throughout this manual. The procedure on this page provides a basic outline for using the Setup screen menus.

#### When setting up for the first time

It is recommended to set up player using the Setup Navigator (page 17). If you selected [Auto Start Off] when the Setup Navigator appeared, you may still set up the player using the Setup Navigator in the **General** menu screen.

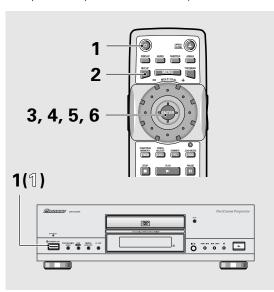
If you choose not to use the Setup Navigator, be sure to make the necessary settings in the Setup screen **Audio 1**, **Audio 2**, **Video**, and **Language** menus as

described on the following pages.

Some DVDs start playing automatically when loaded in the player. If a DVD has been loaded, be sure to press

STOP ■ before proceeding.

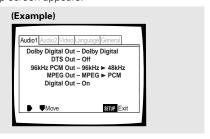
Procedures in this section use the DV-S77 (Taiwan model). Differences in procedures of other models are clearly marked by white numbered steps.



- 1 Press O STANDBY/ON on the front panel (O on the remote control). (Taiwan model)
- Press POWER on the front panel. (Other models)

#### 2 Press SETUP.

The Setup screen appears.

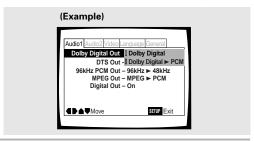


### 3 Move the cursor control joystick right or left to select the menu you want.

As each menu is selected with the cursor, the settings appear below the menu heading.

### 4 Move the cursor control joystick down to enter the menu.

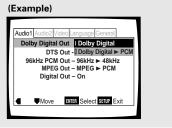
The top item within the menu becomes highlighted.



#### Move the cursor control joystick up or down to select the setting you want to change.

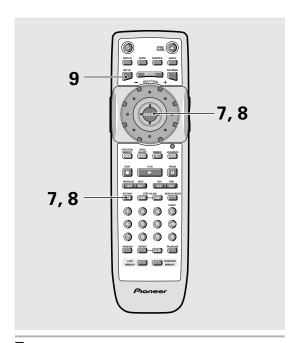
The options available for each setting appear to the right when the setting is selected. The current setting appears with the setting indicator lit.

6 Move the cursor control joystick right to enter the setting options.



- Not all menu options can be changed while a disc is playing. In these cases, the options appear grayed out on the screen and cannot be adjusted. To change these settings, press STOP ■ first before pressing SETUP.
- Operating the menu after pressing STOP may cancel the resume function.
- Some menu options are not immediately effective if set while a disc is playing. To make these settings effective, stop playback and then start again, or change the settings while the disc is stopped.

24 continued



- Move the cursor control joystick up or down to select a new setting and press ENTER to set the new setting in memory. Press RETURN → or move the cursor control joystick left to exit the options without making any changes.
- Press RETURN or move the cursor control joystick left to go back to the main menu bar to select another menu.
- **9** Press SETUP to close the Setup screen.

The Setup screen closes.

#### Note

The next time you press **SETUP**, you'll see the menu screen that you exited from last time.

### How to interpret the setting indicator colors in the Setup screen menus

When setting up the system, or when making adjustments, it is convenient to know what settings are applicable to the different disc formats. When the settings appear for each menu option, the currently selected setting appears with the setting indicator highlighted in one of two colors: blue or green. These colors correspond to what formats the menu option effects as shown in the table below.

Color of indicator	Disc format(s)
Blue	DVD only
Green	All compatible formats

#### Note

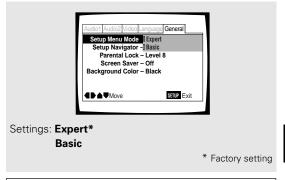
If a setting applicable only to DVDs is changed while a Video CD or CD is loaded, a blue DVD icon appears in the upper right hand corner of the screen to indicate that the setting is not applicable to the currently loaded disc. The setting will be effective the next time a DVD is loaded.

#### **IMPORTANT**

# Changing to the Setup Menu Mode

The Setup screen menus are divided into two levels, [Basic] and [Expert], to make this unit more convenient to operate for different levels of users. The [Basic] menu mode contains functions that may be considered necessary for the basic operations of this player and helpful on-screen information identified by the ① mark. The [Expert] menu mode adds to the [Basic] menu mode additional functions of the player that can be adjusted to further personalize performance of the player.

In this manual, functions that are contained in the **[Expert]** menu mode are identified by the **Expert** icon. Make changes to the **[Setup Menu Mode]** setting in the Setup screen **General** menu.



#### Note

On-screen information only appears [Basic] menu mode.

# Setting the Digital Audio Output To Be Compatible with Your AV Component - DVD

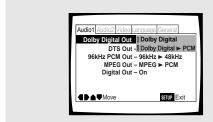
This player is capable of digital audio output for Dolby Digital, DTS, MPEG, and signals with a sampling rate of 96 kHz. Make settings in the Setup screen **Audio 1** menu to reflect the capabilities of the components that you have made digital connections to.

#### Notes

- If you have already completed the Setup Navigator screen operations, the settings on this page have already been set by the player.
- If you have made only stereo line connections (analog) using the supplied audio cord, it is not necessary to make any changes in this menu.

#### **Dolby Digital Out**

This player is capable of outputting the Dolby Digital surround sound audio signal. When the player is connected to an AV component that has a built-in Dolby Digital decoder, select [Dolby Digital]. This player can also convert the Dolby Digital signal to a digital Linear PCM signal, the same digital signal output from a CD. Select [Dolby Digital ▶ PCM] when you have made connections to an amplifier or receiver with a Dolby Pro Logic decoder or a Digital Analog Converter (DAC).

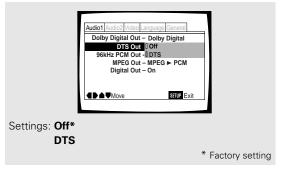


Settings: **Dolby Digital\* Dolby Digital ► PCM** 

\* Factory setting

#### DTS Out

This player is capable of outputting DTS digital audio for DVDs recorded in DTS. When this player is connected to an AV component that has a built-in DTS decoder, select **[DTS]**. If your system is not equipped to decode DTS, select **[Off]**. Refer to the operating instructions supplied with your audio components if you are unsure about compatibility with DTS.

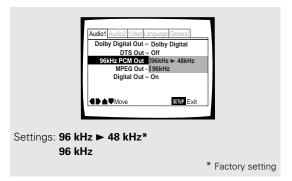


#### Note

If you have made digital audio connections to component(s) not equipped to decode the DTS digital bitstream, be sure to select **[Off]**. If a DTS signal is output without decoding, the output is digital noise that could potentially cause damage to your speakers.

#### 96 kHz PCM Out

This player is capable of outputting digital signals with a sampling frequency of 96 kHz. If you have made connections to a component capable of processing this signal rate, select [96 kHz] for the signal to be output as is. As some components are incapable of processing digital signal input with sampling rates of 96 kHz, selecting [96 kHz ► 48 kHz] compresses the signal to a standard signal with a sampling rate of 48 kHz.

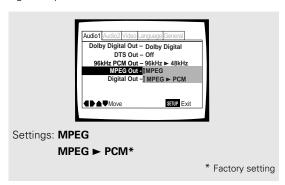


#### Notes

- On DVDs that contain copy protection, the 96 kHz signal may only be output from the analog audio jacks. When this type of disc is encountered, even if [96 kHz] is selected, the player automatically outputs the digital audio signal at a compressed rate of 48 kHz.
- Changes to the [96 kHz PCM Out] setting cannot be made when a disc is playing.

#### **MPEG Out**

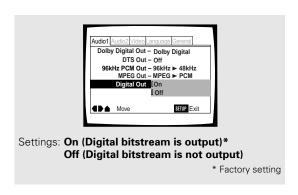
This player is capable of outputting the MPEG digital bitstream. When the player is connected to an AV component that has a built-in MPEG decoder, select the **[MPEG]** setting. Otherwise, select **[MPEG ▶ PCM]** to convert the digital signal to the PCM signal, the digital signal output from a CD.



#### Digital Out Expert

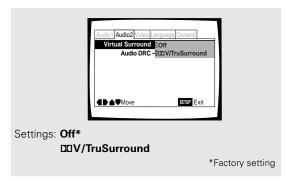
Depending on your preferences and the type of connections made, you may opt not to have the digital audio signal output at all. When this setting is set to **[Off]** there is no signal output from the digital audio output jacks.

Make changes to the [Digital Out] setting in the Setup screen Audio 1 menu in the [Expert] menu mode (page 25).



### **Getting Surround Sound from** Stereo Speakers - DVD/Video CD

Depending on the audio source, this player is capable of switching between Virtual Dolby Digital (multichannel audio sources) and TruSurround (stereo audio sources) to produce a surround sound effect from stereo speakers.

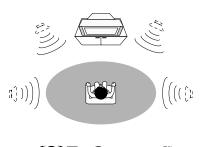


#### Notes

There is no effect when the audio source is either DTS or 96 kHz LPCM.

#### TruSurround and Virtual Dolby Digital

TruSurround uses technology that simulates multichannel surround sound using only two speakers. Virtual Dolby Digital works in conjunction with Dolby Digital audio sources to create a realistic surround sound. Virtual Dolby Digital is selected automatically when Dolby Digital sources are loaded.

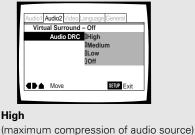


#### ( TruSurround

### **Adjusting the Dynamic Range** of the Audio Soundtrack - DVD

Audio DRC stands for Audio Dynamic Range Compression. When Audio DRC is on, soft sounds such as dialog can be heard more clearly without making loud sounds even louder. Select from three levels of compression depending on how much effect you want. When Audio DRC is set to [Off], there is no effect on the audio source.

Make changes to the [Audio DRC] setting in the Setup screen Audio 2 menu.



Settings: High

Medium

(moderate compression of audio source)

(very little compression of audio source)

Off\*

\* Factory setting

Audio DRC is only effective with Dolby Digital audio sources.

### Setting the TV Screen Size

The width-to-height ratio of conventional TVs is 4:3, while the width-to-height ratio of wide screen and high-definition TVs is 16:9. This width-to-height ratio is called the aspect ratio.

When viewing software recorded in different aspect ratios, the image's height to width ratio can be switched to match the TV or monitor being used.

Make changes to the TV screen size in the [TV Screen] setting in the Setup screen Video menu. Please note that changes to the [TV Screen] setting cannot be made when a disc is playing. Stop playback of the disc before attempting to make any changes.



Settings: 4:3 (Letter Box) 4:3 (Pan & Scan) 16:9 (Wide)\*

\* Factory setting

#### Notes

- If [Standard (4:3)] is selected in the Setup Navigator screen, [4:3 (Letter Box)] is selected on this screen. If you prefer the pan&scan format, change the settings on this
- Whether the aspect can be switched or not depends on the disc. Please refer to the information written on the disc iacket, etc.
- Some discs may not include the screen format selected in the [TV Screen] setting. When this occurs, the standard TV screen format available on the disc is automatically

#### Differences in screen sizes and DVD formats

The number of screen size formats currently available can be somewhat confusing. If set incorrectly, the video presentation may not appear as it should. The following diagrams and descriptions are intended to help you set your TV screen size in a way that will allow you to fully enjoy the digital video of DVD.

The settings in the [TV Screen] setting are perhaps most applicable when the DVD you are watching is programmed in the wide screen format. If you have a standard TV, select either [4:3 (Letter Box)] or [4:3 (Pan & Scan)] based on your personal preference. If you have a wide screen TV, select [16:9 (Wide)].

#### When viewing a wide screen TV or monitor

#### **DVD** screen size format

#### **Setting and Appearance**

#### Wide screen format DVD

Please note that there are some wide screen letter box formats that place black bars at the top and bottom of the screen. This is not a malfunction.



"Wide" setting

Standard screen format DVD When viewing a standard screen format DVD on a wide screen TV, black bars may be automatically placed at the side

of the screen to adjust to the DVD format



#### Standard screen format DVD (unnatural stretched effect)

If you are viewing a standard screen format DVD on a wide screen TV, the picture may appear 'stretched' on the screen. To remedy this condition, change your wide screen TV to display a standard (4:3) screen. Refer to the instructions supplied with your wide screen TV or monitor for more information



#### When viewing a standard size TV or monitor

#### **DVD** screen size format **Setting and Appearance**

#### Wide screen format DVD

The Letter box presentation places black bars at the top and bottom portions of the screen to provide the full wide screen presentation of a movie on a standard TV (4:3 aspect ratio).



"Letter Box" setting

#### Wide screen format DVD

The Pan & Scan presentation crops both sides of the wide screen presentation to use the full standard TV screen.



"Pan & Scan" setting

#### Standard screen format DVD

If you have a standard TV, the standard screen format will be presented regardless of the settina



Any setting

#### Wide screen format DVD (unnatural squeezed effect)

If you are viewing a wide screen format DVD on a standard TV and the [TV Screen] setting is set to [16:9 (Wide)], the picture may appear 'squeezed' on the screen. To remedy this condition, select either [4:3 (Letter Box)] or [4:3 (Pan & Scan)].



Wide" setting

### 525 line Digital Progressive Scan Compatible Video Output

- DVD

#### Connecting to a progressive scancompatible TV

Compared to a standard interlaced TV picture, a progressive scan TV is capable of stable, flicker-free images.

Set only if you connected the **COMPONENT VIDEO OUT** jacks to a progressive scan-compatible TV or
monitor. For this setting to be effective, the rear panel **COMPONENT VIDEO OUT** switch set to **525p (480p)**or **MENU SELECT**.

When a progressive-scan video signal is output, the "PROGRESSIVE SCAN" indicator lights on the front panel.

When the switch is set to **MENU SELECT**, make changes to the **[Component Video]** setting in the Setup screen **Video** menu.



#### Settings: Interlace\*

Use this setting with regular TVs that are not compatible with progressive scan. Check the TV's instruction manual if you are not sure about this.

#### **Progressive**

Use this setting with TVs and monitors that have progressive scan component video inputs. Check the TV's instruction manual if you are not sure about this.

\* Factory setting

#### Tip:

If this player is set to output progressive-scan video, it's possible that the picture will appear stretched when playing discs recorded in 4:3 format. This happens when the TV's aspect ratio is set at 16:9. To see the picture in its correct aspect ratio, change the TV setting to 4:3.

If your TV can be switched between 4:3 and 16:9, set this player to [Interlace].

#### Note

If you connect a TV that is not compatible with a progressive scan signal and choose one of the progressive scan settings, you will not be able to see any picture at all.

Set the rear panel **COMPONENT VIDEO OUT** switch to the **525i(480i)** position.

#### Compatibility of this unit with progressive-scan TVs.

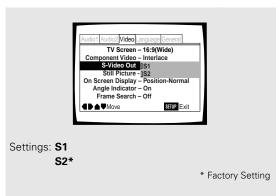
'CONSUMERS SHOULD NOTE THAT NOT ALL HIGH DEFINITION TELEVISION SETS ARE FULLY COMPATIBLE WITH THIS PRODUCT AND MAY CAUSE ARTIFACTS TO BE DISPLAYED IN THE PICTURE. IN CASE OF 525 PROGRESSIVE SCAN PICTURE PROBLEMS, IT IS RECOMMENDED THAT THE USER SWITCH THE CONNECTION TO THE "STANDARD DEFINITION" OUTPUT. IF THERE ARE QUESTIONS REGRADING OUR TV SET COMPATIBILITY WITH THIS MODEL 525p DVD PLAYER, PLEASE CONTACT OUR CUSTOMER SERVICE CENTER.'

### Switching the S-Video Output

Expert - DVD

You can Switch the kind of S-Video signal output from the S-Video outputs. If you connected your TV with an S-Video cord, in rare cases the TV picture may appear stretched. In this case switch the output from **[S2]** to **[S1]**.

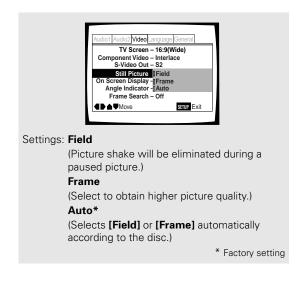
Make changes in the [S-Video Out] in the Setup screen Video menu in the [Expert] menu mode (page 25).



# Selecting the type of paused image to display **MPDI**

This function lets you view a clear still-image when DVD playback is paused.

Make changes in the **[Still Picture]** setting in the Setup screen **Video** menu in the **[Expert]** menu mode (page 25).

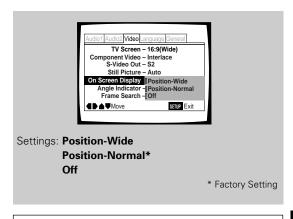


# Setting the position of the on-screen display **men**

When watching conventional software on a wide screen TV, the operation display is at the very top of the screen, and may be difficult to see. Changing the position of the display lets you see operation indicators clearly even on a wide screen TV.

Alternatively, you can choose to turn them off completely with the **[Off]** setting.

Make changes in the **[On Screen Display]** in the Setup screen **Video** menu in the **[Expert]** menu mode (page 25).

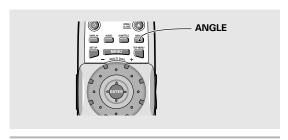


#### Vote

This setting is only effective with DVDs that contain a 4:3 aspect ratio video presentation.

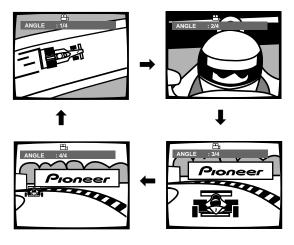
### Viewing from a Desired Camera Angle (Multi-Angle)

You can select a camera angle when viewing DVDs with the multi-angle option.



#### Press ANGLE during playback.

The camera angle changes each time you press the button.



#### Notes

- You can use the Multi-Angle function only with discs featuring recordings of images shot from different camera angles
- During Multi-Angle playback, the **ANGLE** indicator in the display lights.
- For some discs, selection can be made using the DVD menu.

In this case, press **MENU** to display the DVD menu screen and then make your selection.

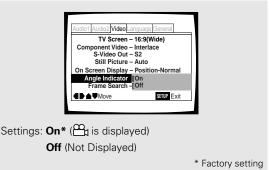
### To check whether or not a disc is recorded with angles:

The jacket of discs that are recorded with angles will be marked with \(^{\text{1}}\). When locations on discs that are recorded with angles are played back, the **ANGLE** indicator can be displayed.

To cancel the angle mark, set [Angle Indicator] to [Off] in the Setup screen Video menu described in the section below.

### Turning the angle indicator on and off Expert

Turn the angle indicator on or off in the [Angle Indicator] setting in the Setup screen Video menu in the [Expert] menu mode (page 25).



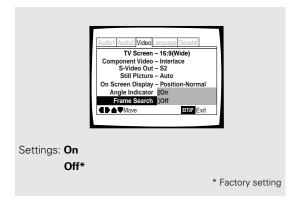
#### Note

Even when the **[Angle Indicator]** setting is set to **[Off]**, the **ANGLE** indicator in the display panel of the player lights during multi-angle playback. Therefore, it is possible to know when the multi-angle function can be used without having to display the icon on the screen.

# Selecting the type of search mode EMPERT - DVD

Set this On if you want to be able to do frame-accurate searching of DVD discs (see **page 45** for how to do a time & frame search).

Make changes in the [Frame Search] in the Setup screen Video menu in the [Expert] menu mode (page 25).



# Setting the Language Options

DVDs have the capacity to contain a great deal of audio information, which includes the ability to hold up to 8 different language tracks and subtitle information in as many as 32 different languages. This section outlines the variety of audio language and subtitle options available with this player.

#### Notes

- DVDs differ in content and do not all contain multiple language or subtitle information. Therefore making settings in this section may have no effect on some DVDs.
- If you have already completed the Setup Navigator screen operations, the settings on this page have already been set by the player.

# Setting the on-screen display (OSD) language

This setting is used to establish the language that operation indicators and on-screen messages and operations display. Change this setting in the Setup screen **Language** menu **[OSD Language]** setting.



Settings: English\*
français
Español

\* Factory setting

#### Note

The **[OSD Language]** setting is factory set to **[English]**. If you want English to be displayed, it is not necessary to adjust this setting.

### Setting Language and Subtitle Preferences in the Setup Screen Menus

The Setup screen **Language** menu contains a number of settings related to the audio and subtitle language preferences.

### Selecting an audio language preference

The audio language that you normally listen to can be selected from the various audio languages on a DVD. Even when the audio language is changed during playback by pressing **AUDIO**, the language selected at this setting will be selected as the default when the DVD is changed.

Make changes to the **[Audio Language]** setting in the Setup screen **Language** menu.



Settings: English\*

French

Spanish Other

(For details on how to select other languages, see 'When "Other" is selected' on page

**36**.)

\*Factory setting

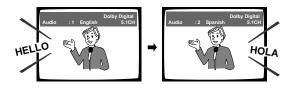
# Changing the Audio Language (Multi-Language Function) - DVD

Dolby Digital, PCM, and other audio data can be recorded on DVDs in a number of languages or audio tracks, letting you choose the desired language or audio.



### Press AUDIO repeatedly to select the desired language.

Pressing **AUDIO** once displays the currently selected language. Subsequent presses rotates through the audio languages available on the DVD.



#### Notes

- You cannot switch languages if there is only one language recorded on the disc.
- Switching the audio language may not be possible with some titles. In this case, the mark is displayed.
- For some titles, selection can be made using the DVD menu.

In these cases, press **MENU** to display the DVD menu screen and then make your selection.

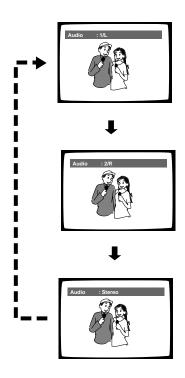
 If a DTS audio soundtrack is selected, then is no output from the analog audio jacks.

#### Changing Audio Type - Video CD/CD

For enjoyment of karaoke or similar format Video CDs and CDs, it is possible to select stereo audio, or either right or left channel mono depending on the requirements of the source.

### Press AUDIO repeatedly during playback to switch the audio type.

Audio output changes from [1/L] (Left channel) to [2/R] (Right channel) to [Stereo].



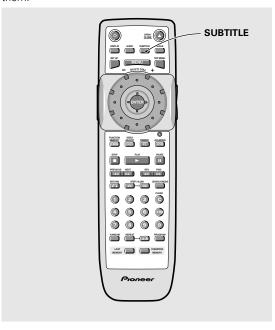
#### Note

With karaoke and other discs, set the appropriate audio type for singing and accompaniment after referring to information on the disc jacket or accompanying material.

# Selecting a Subtitle Language (Multi-Language Subtitles)

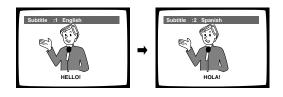
– DVD

You can select a desired subtitle language with DVDs that have subtitle data in multiple languages recorded on them



#### Press SUBTITLE repeatedly during playback.

Pressing **SUBTITLE** once displays the currently selected subtitle language. Subsequent presses rotates through the subtitle languages available on the DVD.

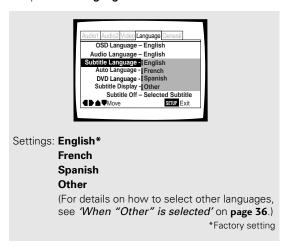


#### Notes

- The subtitle language cannot be switched if the subtitle language is not recorded, or if only one language is recorded.
- Switching the subtitle language may not be possible with some discs. In this case, the mark will be displayed.
- To clear subtitles during playback, press SUBTITLE and then press CLEAR, or press SUBTITLE until [Off] appears.
- For some discs, subtitle language selection can be made using the menu on the DVD. In this case, press MENU to display the DVD menu screen and then make your selection.

### Selecting a subtitle language preference

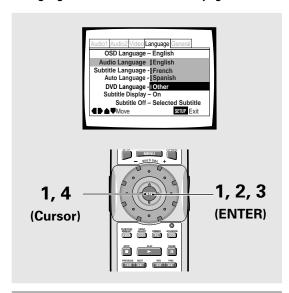
The subtitle language that you will normally display can be selected from the subtitles programmed on a disc. Even when the subtitle language is changed during playback by pressing **SUBTITLE**, the language selected at this setting will be selected when the disc is changed. Make changes to the **[Subtitle Language]** setting in the Setup screen **Language** menu.



#### When "Other" is selected

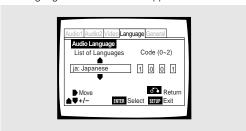
When you want to select one of the 136 languages as the main audio language, follow the steps below when the following screen appears.

#### A language code list can be found on page 56.



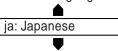
Move the cursor control joystick to select [Other] and press ENTER.

The language selection screen appears.



- 2 Move the cursor control joystick to select either [List of Languages] or [Code].
- 3 If you select [List of Languages], move the cursor control joystick up or down to select the language.

List of Languages



# If you select [Code], move the cursor control joystick up or down to input the numbers of the input code.

Move the **cursor control joystick** right or left to change the position of the cursor. You can also use the **number buttons** to enter the code.

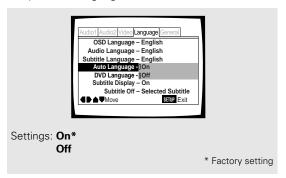


4 Press ENTER to set the new language.

To exit the screen without making any changes, press  $\mathbf{RETURN}_{\circ}$ .

# Setting Auto Language to control subtitle and audio language based on program content

When the Auto Language function is used, foreign movies are shown with the original audio soundtrack and subtitles in the language selected in the [Subtitle Language] menu option. Domestic films are shown with the original audio soundtrack and no subtitles (This setting may not be effective with all DVD discs.) Make changes to the [Auto Language] setting in the Setup screen Language menu.



#### Note

The Auto Language function operates only when this function is set to **[On]**, and the language set for the **[Audio Language]** and **[Subtitle Language]** settings is the same.

# Selecting a DVD menu language preference Expert

In addition to containing different audio languages, DVD may also contain menu screens in different languages as well. Setting a DVD language preference, sets the selected language as a default when DVDs with menu information in that language are encountered.

Selecting [w/ Subtitle Language] automatically assigns the language selected in the [Subtitle Language] setting.

Make changes to the [DVD Language] setting in the Setup screen Language menu in the [Expert] menu mode (page 25).



Settings: w/ Subtitle Language\*

English French Spanish Other

(For details on how to select other languages, see 'When "Other" is selected' on page 36.)

\* Factory setting

#### Notes

- The menu settings may look different from the one shown above.
- If this function is not effective, the languages that can be selected may also be selected in the DVD menu. Press MENU to open the DVD menu and make your selection accordingly.

# Selecting subtitles, assist subtitles or no subtitles Expert

Use this function to turn the subtitles on or off. Additionally, some DVDs provide assist subtitles that provide additional explanations of scenes in addition to the standard subtitles for viewers who are hard of hearing. Select [Assist Subtitle] to display these subtitles on DVDs where this function is offered. Make changes to the [Subtitle Display] setting in the Setup screen Language menu in the [Expert] menu mode (page 25).



Settings: On\*
Off

**Assist Subtitle** 

\* Factory setting

#### Notes

- If there is no subtitle information recorded on the DVD, no subtitles are displayed even if this function is set to **[On]**.
- This setting serves as a default as whether or not to display subtitles. Even if this option is set to [Off], subtitles can be displayed by pressing SUBTITLE. Similarly, if this option is set to [On], the subtitles can be turned off by pressing SUBTITLE and then CLEAR.

#### Forcing subtitles to be displayed Expert

Even when the subtitles are turned off, some DVDs will nevertheless display them on the screen. This setting allows you to select the language of the subtitles to be displayed with this type of DVD.

Select [With Audio] to display the subtitles in the same language as the currently selected audio language. Select [Selected Subtitle] to display the subtitles in the language set in the [Subtitle Language] setting. Make changes to the [Subtitle Off] setting in the Setup screen Language menu in the [Expert] menu mode (page 25).



Settings: With Audio
Selected Subtitle\*

\* Factory setting

# Advanced Functions

This player is compatible with DVD, Video CD, and CD disc formats. Users already familiar with Video CD or CD will already be familiar with some of the functions the player is capable of performing. With DVD, an even greater number of possibilities and functions are available.

#### Note

DVDs differ in content and do not all contain the same information. Therefore some functions in this section may not work or have no effect on some DVDs.

### Setting the Parental Lock Level - DVD

This player lets you set the Parental Lock if the DVD has a parental lock level recorded on it. With Parental Lock capable discs, you can block access to material you feel is inappropriate for your children. Refer to the DVD disc jacket and the accompanying documentation to see if a particular disc contains a parental lock level.

Make changes to the **[Parental Lock]** setting in the Setup screen **General** menu. Please note that changes to the Parental Lock level can only be made when the player is stopped.



Settings: Level Change

(For information, refer to 'Setting the Parental Lock level' on the following page.)

#### **Password Change**

(For information, refer to 'Changing the password' on the following page.)

## When a DVD with a set Parental Lock level is loaded

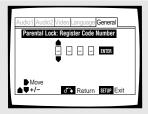
Playback cannot be started until the code number has been correctly input by using the **cursor control joystick** or the **number buttons**, and **ENTER** has been pressed.

#### **Entering the password**

When you select either **[Level Change]** or **[Password Change]**, it is necessary to enter the password (4-digit code number). Use the following steps at any time you are asked to enter or confirm your password.

1 Move the cursor control joystick up or down or the number buttons to select a number between 0 and 9.

You can also use the **number buttons** to enter the numbers directly. When entering your password for the first time, or changing it, you will be asked to reenter your password. When using the **number buttons** to confirm the password, the numbers appear as asterisks, and the cursor advances automatically to the next position.



2 Move the cursor control joystick right or left to move the cursor to a different position in the password.

When all four numbers of the passoword have been entered, **ENTER** appears on the screen.



**3** Press ENTER to set the new password.

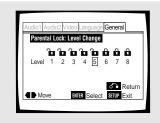
The password is entered.

#### Note

Be sure not to forget your password. If you should forget it, reset the system, and enter a new password. To reset the system, see 'Resetting the Player to System Settings' (page 55). Please note that this procedure resets the system, and clears all saved settings, not just the password.

#### Setting the Parental Lock level

Change the Parental Lock level to a higher or lower level according to the settings printed on the DVD disc jacket or accompanying documentation. If you use the Condition Memory function to save the settings for a particular disc, the Parental Lock level is saved as well. Because it is saved in memory, Parental Lock levels can be set for individual discs according to their content rather than a set level for all DVDs.



# 1 Select [Level Change] in the [Parental Lock] setting.

The screen changes to the password input screen. If you have not yet set a password, you will be asked to do so at this time. To enter the password, refer to *'Entering the password'* on the previous page.

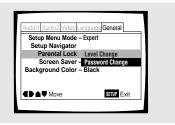
2 Move the cursor control joystick right or left to to adjust the Parental Lock level.

The lock icons appear "unlocked" up to the selected level to indicate that access is available.

**3** Press ENTER to set the new level.

#### Changing the password

Change your password whenever you feel it is necessary. However, if you forget your existing password, you cannot enter this screen to change it.



1 Select [Password Change] in the [Parental Lock] setting.

The screen changes to the password input screen. To enter the password, refer to 'Entering the password' on the previous page.

If you have not yet set a password, you cannot select this setting. Establish a password by selecting **[Level Change]** first.

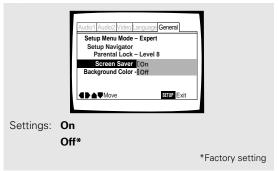
- 2 Move the cursor control joystick right or left to or the number buttons to enter the new password.
- 3 When the new password has been entered, press ENTER.

The new password is set and the screen returns to the **General** menu screen. To go back to the **General** menu screen without making any changes, press **RETURN** 6.

# Turning the Screen Saver On and Off

As a protective function against residual images on the TV screen or monitor, a phenomenon referred to as "screen burn", the screen saver appears when the same screen has been displayed for a length of time. By default, the screen saver is turned off. However, the screen saver function can be turned on and off at your discretion.

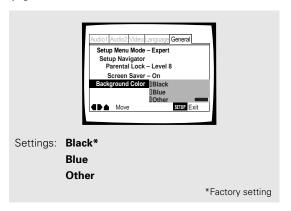
Make changes to the [Screen Saver] setting in the Setup screen **General** menu in the [Expert] menu mode (page 25).



# Changing the Background Color of the Screen

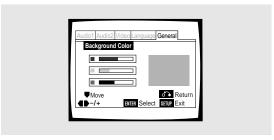
You can select a blue or black background to appear when the player is in the stop mode.

Make changes to the [Background Color] setting in the Setup screen **General** menu in the [Expert] menu mode (page 25).



#### When "Other" is selected

This player gives you the option of creating your own background color by adjusting the red, green and blue levels.



1 Move the cursor control joystick up or down to select a color bar.

The selected color bar becomes highlighted.

2 Move the cursor control joystick right or left to adjust the level of the color.

As the color bar is adjusted, the square on the right side of the screen indicates how the current mix of the three colors appears.

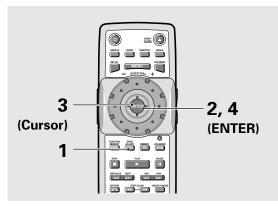
- 3 Repeat steps 1 and 2 until you have achieved a color that you like.
- 4 Press ENTER to set the color as the background color.

# Adjusting the Video Quality (Digital Noise Reduction)

#### - DVD/Video CD

You can either select a preprogrammed setting designed to match certain program types or make adjustments to match your own preferences and save them in the player's memory.

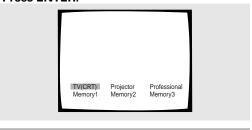
#### Selecting a preprogrammed setting



1 Press VIDEO ADJUST (V.ADJ).



2 Press ENTER.



3 Move the cursor control joystick to select one of the preprogrammed picture quality settings.

**TV(CRT)\*** – (default setting) optimized settings for a standard television set.

**Projector** – optimized for a projector or projection TV

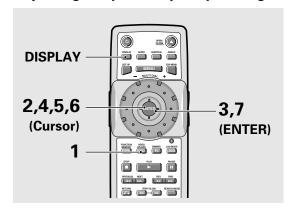
**Professional** – optimized for a professional monitor. **Memory1–3** – user setups (see **page 42** for more on these).

\*Factory setting

4 Press ENTER.

The new selection is set.

#### Adjusting the picture quality settings



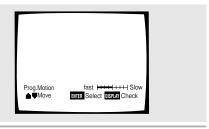
1 Press VIDEO ADJUST (V.ADJ).



Move the cursor control joystick down to select "Video Setup".



3 Press ENTER.



4 Move the cursor control joystick up or down to select the setting to adjust.

#### To create your own setting (1):

You can adjust any or all of the following picture quality factors:

**Prog. Motion** – When using progressive scan, this adjusts the motion and still picture quality.

**PureCinema** – When watching DVD movies, PureCinema optimizes the picture quality. The default setting is **Auto**, but if the picture appears unnatural, then set to **On** or **Off** as desired and adjust the Prog. Motion setting (see above). See PureCinema in the glossary starting on **page 61**.

**YNR** – Adjusts the amount of noise reduction (NR) applied to the Y (brightness) component.

**CNR** – Adjusts the amount of noise reduction (NR) applied to the C (colour) component.

**MNR** (Mosquite Noise Reduction) – Adjusts the amount of noise reduction applied to the mosquito noise (video artifacts on the edge of the image resulting from MPEG compression).

**BNR** (Block Noise Reduction) – Adjusts the amount of noise reduction applied to the block noise.

**Sharpness High** – Adjusts the sharpness of the high-frequency (finely detailed) elements in the picture.

**Sharpness Mid** – Adjusts the sharpness of the midfrequency (less detailed) elements in the picture.

**Detail** – Adjusts how sharp edges appear in the picture.

**White Level** – Adjusts the intensity of white in the picture.

**Black Level** – Adjusts the intensity of black in the picture.

**Black Setup** – For correction of floating black colour

**Hue** – Adjusts the overall colour balance between red and green.

**Chroma Level** – Adjusts how saturated colours appear.

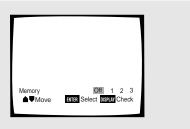
**Chroma Delay** – Compensates for misalignment of the Y (brightness) and the C (colour) components.

# 5 Move the cursor control joystick right or left to adjust the settings.

If a DVD or Video CD is playing, the changes will be visible on the screen as they are adjusted.

# 6 Repeat steps 4 and 5 to make adjustments to other settings.

If you would like to save the settings in the player's memory, be sure to select either "1", "2", or "3" in the **[Memory]** setting to establish which memory location to save the new settings in. Please note that if you select a location where settings have already been saved, the old settings will be replaced by the new ones.



When you are finished making adjustments, press ENTER to establish the new settings.

#### To create your own setting (2):

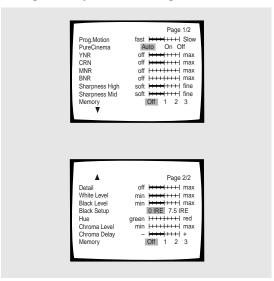
1 Press VIDEO ADJUST (V.ADJ).



2 Select Video Setup, then press ENTER.



- 3 Press DISPLAY.
- 4 Move the cursor control joystick up or down to select a setting; move it left or right to adjust that setting.



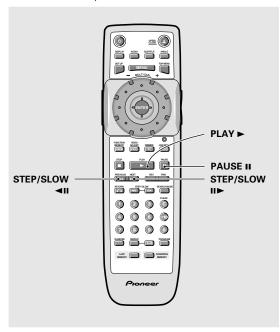
Adjust these while a disc is playing to see the effect of changes immediately.

# 5 To memorize the setting, select memory 1, 2 or 3, then press ENTER.

The previous setting will be erased.

# Still Frame/Slow Play/Frame Advance Playback - DVD/Video CD

The video images on DVD and Video CD can be viewed as a still frame, played back at slow speeds and even advanced frame by frame.



#### Viewing a still frame

#### Press PAUSE II.

When viewing a DVD, if the paused picture shakes, select the [Field] setting in the Setup screen Video menu [Still Picture] setting as described on page 31.

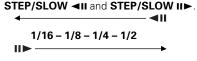
#### To return to normal playback

When viewing a still frame playback, pressing **PAUSE II** or **PLAY** ► restores normal playback operation.

#### Viewing slow playback

## Press and hold STEP/SLOW II► for about 2 seconds during playback.

- · Slow playback is engaged.
- During slow playback, the speed of playback can be adjusted from 1/2 normal playback speed to 1/16 normal playback speed in four steps using



## Press and hold STEP/SLOW **◄II** for about 2 seconds during DVD playback.

• Slow playback in the reverse direction is engaged.

#### To return to normal playback

When viewing still frames or slow playback, pressing **PLAY** ► restores normal playback operation.

# Frame by frame advance playback: Viewing one frame at a time

With this function, DVDs can be viewed in both forward and reverse directions. Video CDs can only be moved in the forward direction.

#### 1 Press PAUSE II.

#### 2 Press STEP/SLOW **◄II** or STEP/SLOW **II**►.

**STEP/SLOW II**: The picture advances one frame each time the button is pressed.

STEP/SLOW ◀II: The picture backs up a DVD a few frames each time the button is pressed.

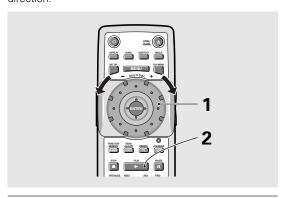
#### To return to normal playback

When viewing frame by frame playback, pressing **PLAY** ► restores normal playback operation.

- There is no sound when viewing still frames or slow playback, or when advancing one frame at a time.
- Still frame, slow play, or frame advance playback may not be possible with certain titles. In this case, the mark is displayed.

# Scanning in Forward and Reverse Directions at Different Speeds - DVD/Video CD/CD

This player incorporates technology that enables smooth playback of DVDs and Video CDs not only at different speeds but also in both forward and reverse directions. Video CDs cannot be played slowly in the reverse direction.



- 1 Rotate MULTI DIAL in the direction you want to scan until the appropriate scan speed is displayed on the screen.
  - Rotate MULTI DIAL clockwise to scan in the forward direction.
  - Rotate MULTI DIAL counterclockwise to scan in the reverse direction.

The incremental rate of scanning is the same in both directions, however, differs depending on the speed at which **MULTI DIAL** is turned as follows.

#### When MULTI DIAL is turned slowly

Clockwise rotation:

C

PLAY→1/16→1/8→1/4→1/2→1/1→SCAN 1→SCAN 2→SCAN 3

Counterclockwise rotation:

SCAN 3←SCAN 2←SCAN 1←1/1←1/2←1/4←1/8←1/16←PLAY

- It is possible to return to slower scan rates by turning **MULTI DIAL** in the opposite direction.
- If the dial is turned rapidly after being first turned slowly, the rates of search will jump to the type of scanning described below.
- Rates preceding "1/1" are slowed playback.
   "1/1" refers to the normal playback rate. "SCAN 1", "SCAN 2", and "SCAN 3", refer to progressively faster rates of scanning.

#### When MULTI DIAL is turned quickly

Clockwise rotation:

DVD: SCAN 1→SCAN 2→SCAN 3 Video CD: SCAN 1→SCAN 2

Counterclockwise rotation:

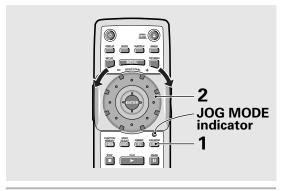
DVD: SCAN 3←SCAN 2←SCAN 1 Video CD: SCAN 2←SCAN 1 2 During scanning, turn MULTI DIAL quickly in the opposite direction of the search to resume normal playback.

#### Note

Pressing  $PLAY \triangleright$  also ends slow or scan playback and returns to normal playback of the disc.

# Manual scanning using the Jog Mode - DVD/Video CD

The Jog Mode can additionally be used to locate a frame you want to view, or a scene in a movie you wish to watch at a slow speed.



1 Press JOG MODE.

The **JOG MODE** indicator lights red.

2 Rotate MULTI DIAL clockwise to scan frame by frame in the forward direction. Rotate MULTI DIAL counterclockwise to scan frame by frame in the reverse direction. Video CDs cannot be scanned in the reverse direction.

When **MULTI DIAL** is not being turned, the video image is paused.

3 Press JOG MODE again to turn the Jog Mode off.

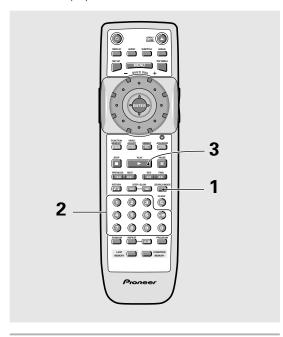
The **JOG MODE** indicator turns off.

- There is no audio when a slow or scan playback function is being performed, even when the speed is "1/1" in forward play.
- Slow or scan playback may not be possible with certain titles. In this case, the amark is displayed.
- With Video CDs, slow or scan playback is not possible when the menu is displayed (PBC playback).
- With Video CDs, slow playback in the reverse direction is not possible.
- Depending on the DVD, slow reverse playback may not be smooth (picture shake or frames jump) and there may be some degradation of the picture quality. This is not a malfunction.
- Depending on the DVD, slow reverse playback or reverse frame by frame scanning may be canceled when the beginning of a chapter is encountered. This is not a malfunction.

# Searching for a Title, Chapter, Track, or Location on a Disc

#### - DVD/Video CD/CD

This player offers different ways of accessing the information on a DVD, Video CD, or CD. Using **SEARCH MODE**, you can search for titles or chapters on a DVD, tracks on a Video CD or CD, and even select the point in time to start playback.



# 1 Press SEARCH MODE repeatedly to select the type of search.

The type of search changes which each press as follows.



\* The [Frame Search] option in the Video menu must be [On] to use this.(DVD)

#### Press the number button(s) of the desired title, chapter or track or of the specific time where you would like to begin playback.

- To select number 3, press 3.
- To select number 10, press **1** and **0**.
- To select number 87, press 8 and 7.

## When performing a time/time & frame search: (Frame search is only possible with DVD discs.)

- To select 21 minutes, 43 seconds, press **2, 1, 4,** and **3**.
- To select 1 hour, 14 minutes, press 7, 4, 0, and 0
- To select 21 minutes, 43 seconds and 16 frames, press **2**, **1**, **4**, **3**, **1** and **6**.

#### 3 Press PLAY ►.

- Playback of the selected title, chapter or track starts.
- When a time search is performed, playback begins at the appointed time.
- When you do a time & frame search, the selected frame is displayed as a still.

# To perform a direct title or chapter/track search using the number buttons

Press the number buttons while the disc is stopped to select a title number.

Press the number buttons while the disc is playing to select a chapter or track.

- To select number 3, press 3.
- To select number 10, press +10 and 0.
- To select number 37, press **+10**, **+10**, **+10** and **7**.

#### Notes

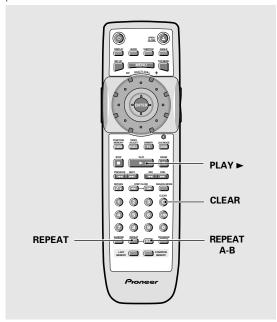
- For some discs, selection can be made using the top menu on the DVD. In this case, press **TOP MENU** to display the menu screen and then make your selection.
- With some DVDs, the search operation may not be possible and may stop shortly after being performed. In this case, the mark is displayed.
- Time search is not possible with CDs.
- When performing DVD time search, playback may start from a slightly different time than that specified.
- Time/time & frame search is not possible during when the disc is stopped.
- Search using SEARCH MODE is not possible during PBC playback of Video CDs.
- NTSC display 30 frames per seconds, number 0–29.
   PAL\* display 25 frames per seconds, number 0–24.
   The Frame Search option in the Video menu must be [On] to use this. Press DISPLAY while a still picture is displayed to see the frame number.

Depending on the disc, it may not be possible to search for a specific frame. Also, when using frame advance, forward step or reverse step, it may not be possible to view every frame. Each frame may not be appear in exact order when stepping through them. The number assigned to a specific frame may be different when stepping through the frames in forward or reverse mode.

\* Playback of PAL discs is not possible on the Taiwan model.

#### Repeat Play - DVD/Video CD/CD

You can repeat an entire title, chapter or track, or just a part.



#### Repeat play of a chapter/track

Press REPEAT once during playback of the chapter or track you want to repeat.

#### Repeat play of a title

# Press REPEAT twice during playback of the title you want to repeat.

- With DVDs, the title continues playing until the end, and then playback starts once more from the beginning of that title.
- With CDs and Video CDs, a disc is considered a single title, so the entire disc is repeated.

#### To repeat a program

Press **REPEAT** once during program playback to repeat the program.

#### To cancel repeat play

Press **CLEAR**. Playback continues, but the repeat function is canceled.

#### Repeat play of a specified section

## Press REPEAT A-B at the beginning and end of the section you want to repeat.

- When REPEAT A-B is pressed a second time, the disc returns to the location where REPEAT A-B was pressed first and plays the selected section repeatedly.
- You can only perform A–B repeat within the same title.

#### To cancel A-B repeat play

Press **CLEAR**. Playback continues, but the repeat function is canceled.

# Return to a specified location on a disc

- 1 Press REPEAT A-B at the desired location.
- When you want to return to the specified location, press PLAY ►.

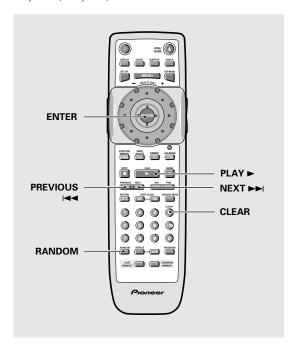
#### To clear the specified location

Press **CLEAR** to cancel repeat play or to clear the specified location that was set using **REPEAT A-B**.

- With some DVD discs, there may be times when repeat playback is not possible. In these cases, the mark will appear on the screen.
- With Video CDs, repeat play is not possible when the menu is displayed (PBC playback). To perform repeat play, start playback without displaying a menu by pressing the track number to be repeated when the disc is stopped, and then press REPEAT.
- If you switch camera angle during repeat play, repeat play is cancelled.

#### Random Play - DVD/Video CD/CD

Play titles, chapters, or tracks on a disc in random order.



# Random playback of chapters within one title - DVD

## Press RANDOM once, then press ENTER or PLAY ▶.

"Random Chapter" appears on the screen, and chapters within the title will be played back in random order.

#### Random playback of titles - DVD

## Press RANDOM twice, then press ENTER or PLAY ▶.

"Random Title" appears on the screen, and titles will be played back in random order.

#### Random playback of tracks

-Video CD/CD

#### Press RANDOM.

"Random" appears on the screen, and random playback begins.

## To change titles, chapters, or tracks during random play

- Press NEXT ►►I and the next randomly selected track starts playing.
- Press **PREVIOUS** |◄◄ and playback of the current track starts again from the beginning.

#### To stop random play

Press **CLEAR**. This returns you to normal playback of chapters/tracks in order from the chapter/track currently playing.

#### Note

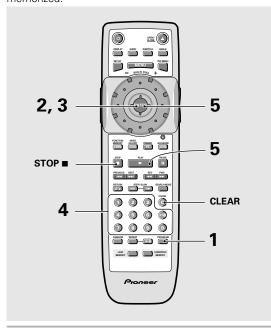
- With Video CDs, random play is not possible during playback when the menu is displayed (PBC playback). To perform random play, start playback without displaying a menu by pressing a track number button while in the stop mode, and then press RANDOM.
- Random play of programmed chapters/tracks is not possible.
- In the case of DVDs, random playback may not be possible with some discs.
- Repeat playback of random playback is not possible. In these cases, the mark will appear on the screen.

# Playback in a Desired Order (Program Play) - DVD/Video CD/CD

The titles and chapters within a title on a DVD and similarly the tracks on a Video CD or CD can be arranged to play in the order you want.

#### **Programming DVDs**

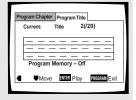
A program with a maximum of 24 steps can be memorized.



#### 1 Press PROGRAM.

The Program screen appears.





- 2 Move the cursor control joystick right or left to select either Chapter or Title program.
- 3 Once the program type is selected. Move the cursor control joystick down to enter the program window.

When [Program Chapter] is selected, you must also select what title the chapters to be programmed are in. Use the cursor control joystick up to highlight "Title" and then use the number buttons to enter the title number to be used.

- 4 In the program window, use the number buttons to enter the numbers of the titles or chapters in the order you want to program them in.
  - To program DVD titles/chapters 9, 7, and 18 in order, press **9, 7, +10** and **8**.





#### 5 Press ENTER or PLAY ▶.

- Playback starts in the set order.
- Press PROGRAM to return to the previous display. The program will not begin until PLAY > is pressed.

#### To program a pause in a program

Press PAUSE II instead of a number button.

"II" appears on the screen and the pause can be programmed.

A pause cannot be programmed as the first or last position in a program, and two or more pauses cannot be programmed in succession.

#### To delete a number:

Move the **cursor control joystick** to highlight the incorrect number and then press **CLEAR**.

The number is deleted. If the number was before another number, the later numbers are reordered automatically.

#### To insert a number:

Move the **cursor control joystick** to highlight the number to be placed after the new number and then press the **number button(s)** of the number to be inserted.

The new number is inserted before the previously selected number.

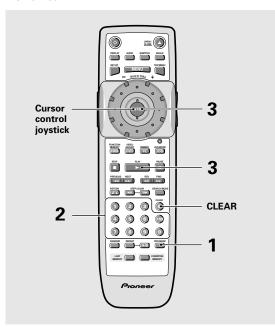
#### To stop program play

Press **STOP** ■.

- When programming chapters, chapters not programmed may appear on the screen. This is not a malfunction.
- Programming may not be possible with certain DVD discs.
   On these types of discs, the mark will appear on the screen when programming is attempted.
- Only chapters within the same title can be programmed during chapter programming.

#### **Programming Video CDs, CDs**

A program with a maximum of 24 steps can be memorized.



#### 1 Press PROGRAM.

The program screen appears. When a Video CD or CD is loaded, the cursor appears in the program window.



# 2 Use the number buttons to enter the numbers of the tracks in the order you want to program them in.

- To program tracks 9, 7, and 18 in order, press 9, 7, +10 and 8.
- To edit the program, refer to the procedures on the previous page.

#### 3 Press ENTER or PLAY ►.

- Playback starts in the specified track order.
- To stop the program play, press STOP ■.

#### Notes

- To program a pause, or to add or delete a number, refer to the procedures for programming DVDs on page 48.
- You cannot program when playing a Video CD using menu selections (during PBC).

#### Additional programming options

- DVD/Video CD/CD

After you have made a program, it is then possible to confirm, add, or clear the contents of the program.

#### To confirm the contents of a program:

On a CD or Video CD track program, press **PROGRAM** to confirm. The program screen displays the current program.

On a DVD, select the program type (title or chapter) by moving the **cursor control joystick** right or left. The current DVD title or chapter program can then be confirmed on the appropriate program screen.

#### To add to a program:

- 1 Press PROGRAM.
- 2 Press a number button to add a new title, chapter, or track at the end of the program.
- 3 Press **PROGRAM** to exit the program screen.

#### To delete a program:

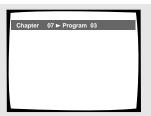
- 1 Press PROGRAM.
- 2 Select the program by moving the cursor control joystick right or left, then press CLEAR.
- 3 Press PROGRAM to exit the program screen.

- The complete program will be deleted even if the disc tray is open.
- Pressing CLEAR when the disc is stopped will clear all programs.

## To make a program of your favorite parts of a disc as it plays – DVD/Video CD/CD

With this player, it is possible to make a program as you watch a DVD or Video CD or while listening to a CD.

Press and hold PROGRAM for at least 2 seconds at any point during playback of a title, chapter, or track you want to program, and it will be made into or added to a program without displaying a Program screen. When a title, chapter, or track is successfully added to the program, it is shown momentarily in the display as well as its position in the program.



#### To confirm the contents of a program:

Press **PROGRAM**.

#### Notes

- When using this function to program DVDs, the program being created corresponds to the Program screen (chapter or title) that appears when **PROGRAM** is pressed. Be sure to check that the appropriate program type is selected.
- You cannot make a program containing chapters in different titles.

#### To save a program in memory - DVD

This player can memorize the programs on up to 24 DVDs. By turning the **[Program Memory]** to **[On]**, the player will save your program and recall it the next time you use the same DVD. When the program memory exceeds 24, programs will be erased in chronological order from the oldest program in memory.

1 Move the cursor control joystick down to highlight [Program Memory] and then right to select [On].



#### 2 Press ENTER.

The program is saved in memory.

#### Note

When a DVD with a program stored in memory is loaded, program playback may start automatically.

#### To erase a program saved in memory - DVD

The player erases programs in chronological order when the maximum number of programs that can be held in memory is exceeded. To prevent the player from erasing older programs that you may still use regularly, or when you don't want to use a program anymore, it is possible to manually erase programs stored in memory.

- 1 Load a DVD that has a program stored in memory.
- 2 Press PROGRAM.

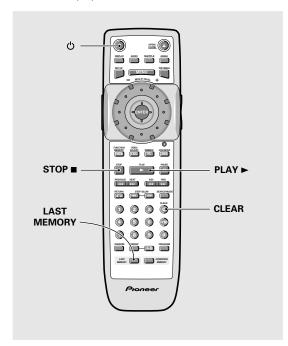
The program screen appears.

- 3 Move the cursor control joystick down to highlight [Program Memory] and then right and down to select [Off].
- 4 Press ENTER.

The program is cleared from memory.

# Continuing Playback from a Specified Location (Last Memory) - DVD/Video CD

The Last Memory function is convenient when you want to continue viewing a disc from the point where you were watching before. Unlike the resume function, the Last Memory function is effective even if the DVD is removed from the player (Last Memory locations saved for Video CDs are effective only if the disc remains loaded in the player).



#### Memorizing a Last Memory location to return to later

1 Press LAST MEMORY during play.

The **"LAST MEMORY"** indicator lights on the player.

# 2 Press ७ to turn the power to standby, or stop playback with STOP ■.

Once memorized, the memorized point will be recalled even if the power is turned off, or if the disc is ejected. Points on up to 5 discs can be memorized, and those points are recalled the next time any of the discs are played back.

 A Last Memory point can be memorized for only one Video CD at a time as the function is only effective until the Video CD is removed from the player.

# Resuming playback from where LAST MEMORY was pressed

Load a disc that has a Last Memory point memorized.

Some DVDs will start playback automatically when loaded. In this case, press **STOP** ■ to stop playback.

# 2 Press LAST MEMORY while in the stop mode.

The disc begins playback at the memorized point.

- Last Memory mode may not function for some DVDs.
- If you register more than five DVDs, details of the latest disc are memorized, while details of the least recent disc (the disc you registered first) is erased.
- Even with a disc you have memorized with Last Memory, playback begins at the start of the disc if you press PLAY >.
- This function is for playback of DVDs or Video CDs only. You cannot use it with CDs.

#### To clear the Last Memory location

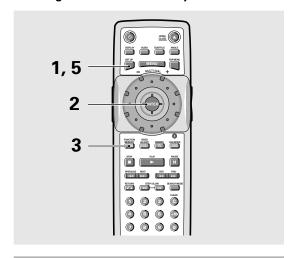
Call up the Last Memory location by pressing **LAST MEMORY**. Then press **CLEAR** while **"Last Memory"** is still being displayed on the screen.

The "LAST MEMORY" indicator disappears from the display.

# Memorizing Regularly Used Menu Settings (Function Memory) - DVD/Video CD/CD

You can create a shortcut menu that contains settings that you frequently change and call up this menu whenever you need to change one of the stored settings. Settings remain in memory regardless of the disc loaded in the player.

#### **Creating the Function Memory item list**



- 1 Press SETUP to display the Setup screen.
- 2 Move the cursor control joystick to select the menu and then the menu item you want to add to the Function Memory.
- **3** Press FUNCTION MEMORY.

If "FM" appears next to the menu item, the item has been successfully added to the Function Memory.

4 Repeat steps 2 and 3 to add as many as 5 items to the Function Memory.

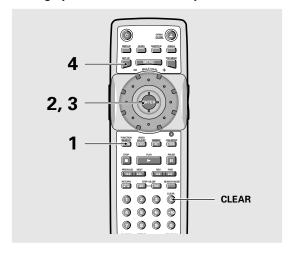
When 5 items have already been stored, **"FM"** does not appear next to the item when **FUNCTION MEMORY** is pressed.

5 Press SETUP to close the Setup screen.

#### Note

Items that cannot be changed when the disc is playing cannot be added to Function Memory if the disc is currently playing. When these items are selected, on-screen information or will be displayed.

#### Calling up the Function Memory item list



#### 1 Press FUNCTION MEMORY.

The Function Memory item list appears on the screen

2 Move the cursor control joystick to select the item you want to adjust and press FNTFR

The Setup screen opens, and the cursor is moved to the appropriate menu and menu item as selected in the Function Memory item list.

3 Move the cursor control joystick to make setting adjustments, then press ENTER.

The setting is changed. For more information on making adjustments in the Setup screen menus, refer to the section "Using the Setup Screen Menus" on page 24.

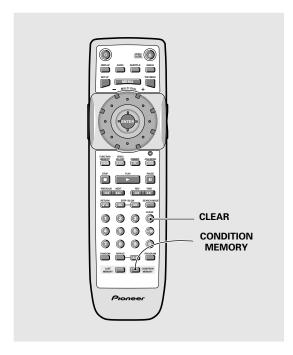
4 Press SETUP to close the Setup screen.

#### To clear an item from the FUNCTION MEMORY

- 1 Press **SETUP** to open the Setup screen.
- 2 Move the cursor control joystick to the menu and menu item marked with "FM".
- 3 Press FUNCTION MEMORY to clear the item from the Function Memory. If "FM" disappears, the item has been cleared.
- 4 Press **SETUP** to close the Setup screen.

# Memorizing Settings for Often Viewed DVDs (Condition Memory) - DVD

You can store in memory settings for DVDs you often watch. Settings remain in memory even if you remove the disc from the player, or switch power to the player to standby. If you load a disc that has its settings memorized, "CONDITION" appears in the display. When you start playing the disc, the memorized settings are automatically recalled.



#### Press CONDITION MEMORY during playback.

Settings are memorized for the disc currently playing.

#### The following six settings are memorized:

On Screen Display (page 31)
Multi-Angle (page 32)
Multi-language (pages 33, 34)
Multi-Language subtitles (page 35)
Parental Lock Level (page 38)
Video Quality (page 41)

## When a disc that has memorized settings is loaded

"Condition Memory" will appear on the screen, and the previously memorized settings will be selected.

#### **Erasing the recorded contents**

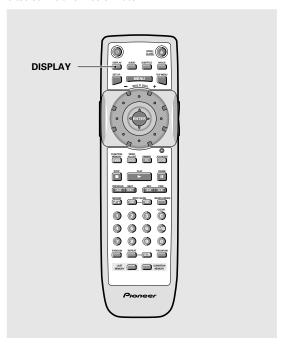
Load a disc that has memorized settings, and press **CLEAR** while **"Condition Memory"** is being displayed. The disc's recorded data will be erased.

- Settings are stored in memory for use any time.
- You can store settings for up to 15 DVDs in memory. If you memorize settings for more than 15 DVDs, previously memorized settings are erased in chronological order from the least recently memorized. Subsequently, if you load a disc with erased settings, the settings of the most recently played disc are used.
- If you make changes to any of the settings memorized in Condition Memory, press CONDITION MEMORY during playback to memorize new settings.
- Switching of the multi-language mode etc., is automatic on some discs.

### **Viewing Disc Information**

- DVD/Video CD/CD

Use **DISPLAY** to get current information about the disc currently loaded. You can get information about the titles and chapters on a DVD or tracks on a Video CD or CD. When viewing DVDs, you can also check the digital bitstream transmission rate.



#### Press DISPLAY during while a disc is playing. Press DISPLAY repeatedly to change the information being displayed.

The disc information is displayed superimposed over the video image on the screen.

# Press and hold DISPLAY to display the time remaining on the disc.

When you release the button, the information disappears.

#### Note

Depending on the format and type of disc being used, not all screens may be displayed.

The display changes for each type of disc as follows each time the button is pressed.

#### DVD



#### TITLE information:

**Top Row:** title and chapter number, elapsed time of current title

**Bottom Row:** remaining time in title, total time of title

1



#### **CHAPTER** information:

**Top Row:** title and chapter number, elapsed time of current title

**Bottom Row:** time in current chapter, total time of chapter

1



#### **CHAPTER** information:

**Top Row:** title and chapter number, elapsed time of current title

**Bottom Row:** remaining time in current chapter, total time of chapter

Play # 1–1 1.32 Tr. Rate : ######## 8,9

#### Data transmission rate information:

**Top Row:** title and chapter number, total elapsed time of DVD

**Bottom Row:** bitstream transmission rate level

\* The hash mark (#) indicates that the current display is film material (page 61)

Display off

1



#### Track Information:

**Top Row:** current track number, track time

**Bottom Row:** remaining time of current track, and total time of track

1



#### Disc information:

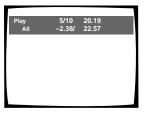
**Top Row:** current track number, total number of tracks on CD, total elapsed time of CD

**Bottom Row:** remaining time of CD, total time of CD

1

Display off

#### Video CD (with PBC disabled)

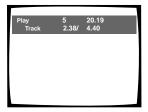


#### Disc information:

**Top Row:** current track number, total number of tracks, total elapsed time of Video CD

**Bottom Row:** remaining time of Video CD, total time of Video CD

1



#### Track information:

**Top Row:** current track number, total elapsed time of Video CD

**Bottom Row:** track time, total time of track

1



#### Track information:

**Top Row:** current track number, total elapsed time of Video CD

**Bottom Row:** remaining time of track, total time of track

1

Display off

#### Note

When playing Video CDs in PBC mode or unfinalized CD-Rs not all the above information is displayed.

# Press DISPLAY during while a disc is stopped to display DVD title and chapter information or Video CD and CD track information. Press DISPLAY again to turn the display off.

Information about the titles and chapters or tracks on a disc is displayed. When the information exceeds the space on the screen, use the **cursor control joystick** right or left to move to other screens.

#### DVD



#### **DVD** information

When a DVD is loaded, each title and the number of chapters within each title is displayed.

#### **CD** and Video CD



CD and Video CD information

When a CD or Video CD is loaded, the total time of the disc and the time of each track on the disc is displayed.

# Resetting the Player to System Settings

To reset the player, press and hold **■/** on the front panel when pressing **♡ STANDBY/ON** (or **POWER**) on the front panel to turn the unit from standby to on.

All program memory, saved settings from functions such as Last Memory and Condition Memory are cleared, and all Setup screen menus are returned to factory settings.

# Language Code List

Language codes are used when setting the audio and subtitle language preferences (page 36).

0 0 .	
Language	Input-code
Japanese (ja)	1001
English (en)	0514
French (fr)	0618
German (de)	0405
Italian (it)	0920
Spanish (es)	0519
Chinese (zh)	2608
Dutch (nl)	1412
Portuguese (pt)	1620
Swedish (sv)	1922
Russian (ru)	1821
Korean (ko)	1115
Greek (el)	0512
Afar (aa)	0101
Abkhazian (ab)	0102
Afrikaans (af)	0106
Amharic (am)	0113
Arabic (ar)	0118
Assamese (as)	0119
Aymara (ay)	0125
Azerbaijani (az)	0126
Bashkir (ba)	0201
Byelorussian (be)	0205
Bulgarian (bg)	0207
Bihari (bh)	0208
Bislama (bi)	0209
Bengali (bn)	0214
Tibetan (bo)	0215
Breton (br)	0218
Catalan (ca)	0301
Corsican (co)	0315
Czech (cs)	0319
Welsh (cy)	0325
Danish (da)	0401
Bhutani (dz)	0426
Esperanto (eo)	0515
Estonian (et)	0520
Basque (eu)	0521
Persian (fa)	0601
Finnish (fi)	0609
Fiji (fj)	0610
Faroese (fo)	0615
Frisian (fy)	0625
Irish (ga)	0701
Scots-Gaelic (gd)	0704
Galician (gl)	0712
Guarani (gn)	0714

Language	Input-code		
Gujarati (gu)	0721		
Hausa (ha)	0801		
Hindi (hi)	0809		
Croatian (hr)	0818		
Hungarian (hu)	0821		
Armenian (hy)	0825		
Interlingua (ia)	0901		
Interlingue (ie)	0905		
Inupiak (ik)	0911		
Indonesian (in)	0914		
Icelandic (is)	0919		
Hebrew (iw)	0923		
Yiddish (ji)	1009		
Javanese (jw)	1023		
Georgian (ka)	1101		
Kazakh (kk)	1111		
Greenlandic (kl)	1112		
Cambodian (km)	1113		
Kannada (kn)	1114		
Kashmiri (ks)	1119		
Kurdish (ku)	1121		
Kirghiz (ky)	1125		
Latin (la)	1201		
Lingala (In)	1214		
Laothian (lo)	1215		
Lithuanian (It)	1220		
Latvian (Iv)	1222		
Malagasy (mg)	1307		
Maori (mi)	1309		
Macedonian (mk)	1311		
Malayalam (ml)	1312		
Mongolian (mn)	1314		
Moldavian (mo)	1315		
Marathi (mr)	1318		
Malay (ms)	1319		
Maltese (mt)	1320		
Burmese (my)	1325		
Nauru (na)	1401		
Nepali (ne)	1405		
Norwegian (no)	1415		
Occitan (oc)	1503		
Oromo (om)	1513		
Oriya (or)	1518		
Panjabi (pa)	1601		
Polish (pl)	1612		
Pashto, Pushto (ps)	1619		
Quechua (qu)	1721		

Language	Input-code		
Rhaeto-Romance (rm)	1813		
Kirundi (rn)	1814		
Romanian (ro)	1815		
Kinyarwanda (rw)	1823		
Sanskrit (sa)	1901		
Sindhi (sd)	1904		
Sangho (sg)	1907		
Serbo-Croatian (sh)	1908		
Sinhalese (si)	1909		
Slovak (sk)	1911		
Slovenian (sl)	1912		
Samoan (sm)	1913		
Shona (sn)	1914		
Somali (so)	1915		
Albanian (sq)	1917		
Serbian (sr)	1918		
Siswati (ss)	1919		
Sesotho (st)	1920		
Sundanese (su)	1921		
Swahili (sw)	1923		
Tamil (ta)	2001		
Telugu (te)	2005		
Tajik (tg)	2007		
Thai (th)	2008		
Tigrinya (ti)	2009		
Turkmen (tk)	2011		
Tagalog (tl)	2012		
Setswana (tn)	2014		
Tonga (to)	2015		
Turkish (tr)	2018		
Tsonga (ts)	2019		
Tatar (tt)	2020		
Twi (tw)	2023		
Ukrainian (uk)	2111		
Urdu (ur)	2118		
Uzbek (uz)	2126		
Vietnamese (vi)	2209		
Volapük (vo)	2215		
Wolof (wo)	2315		
Xhosa (xh)	2408		
Yoruba (yo)	2515		
Zulu (zu)	2621		

# Additional Information

#### **Disc Care**

#### How to hold discs

When loading or removing discs, try not to touch their playing surfaces.



#### Cleaning

Fingerprints or other dirt on the disc may affect sound and picture quality.

To clean your discs, use a soft clean cloth to wipe them. If necessary, moisten a soft cloth with diluted neutral detergent to remove heavy dirt or fingerprints.





Do not wipe in a circular direction (Concentric scratches in the disc groove tend to cause noise).

Gently wipe from the inside toward the outer edge.

Discs must not be cleaned with record cleaning sprays, or static prevention sprays, etc. Also do not use volatile liquids such as benzine, or thinner, etc.

#### Never play cracked or warped discs

The disc revolves in the player at high speed when it is played. Never play a cracked, scratched or warped disc. This may damage the player or cause it to malfunction.



#### Never use discs with special shapes

CD's with special shapes (heart-shaped CDs, octagonal CDs, etc.) cannot be played on this set.
Attempting to do so may damage the set. Do not use such CDs.





#### After using discs, store them upright

After playing a disc, always remove it from the player and return it to its jacket. Then store it standing upright away from heat and humidity.

- Store discs carefully. If you store discs at an angle, or stacked on top of each other, discs may become warped even when in their jackets.
- Do not leave discs in locations such as the seat of a car, which may become excessively hot.

#### **CAUTION WHEN USING THE DISC**

All rights reserved.

Unauthorized public performance, broadcasting or copying is a violation of applicable laws.

# For Proper and Long Use of This Unit

#### Do not move the unit during playback

During playback, the disc rotates at high speed. Do NOT lift or move the unit during playback. Doing so may damage the disc.

#### When moving the unit

When changing places of installation or packing the unit for moving, be sure to remove the disc and return the disc table to its original position in the player. Then, press <sup>O</sup> STANDBY/ON and switch the power to standby. Check that the "--OFF--" indication on the display goes off, then disconnect the power cord. Moving this unit with the disc loaded may result in damage to this unit.

#### Installation

- Select a stable place to the side of a TV set or stereo system to be connected to the unit.
- When using the unit with a stereo system, install the speakers a little bit away from the TV.
- Do NOT install the unit on top of a TV or color monitor.
   Install the unit away from equipment that may be affected by magnetism, such as a cassette deck.
- Do NOT place objects on top of the unit.

#### Avoid installing in a place that is:

- Exposed to direct sunlight
- Exposed to humidity or where ventilation is poor
- Extremely hot or cold
- Exposed to vibration
- Exposed to dust
- Exposed to oily smoke, steam or heat (for example, a kitchen)

#### Do not block vents

Do NOT use the player on top of a long-fibered carpet, bed or sofa, and do not cover it with a cloth, etc. This will prevent heat radiation and could result in damage.

#### **Avoid heat**

Do NOT place the unit on equipment which generates heat, such as an amplifier.

When installing the unit in a rack, place it on the lowest shelf possible (however, not where it is exposed to dust) and separated from the amplifier to avoid the heat generated by the amplifier or other audio equipment.

## CAUTION: WHEN PLACING THE UNIT IN A STEREO RACK WITH GLASS DOORS

Be sure there is ample space between the unit and the glass doors when opening the disc table using the remote control. If the disc table opens against strong resistance, such as a closed glass door, damage to the unit may result.

#### Lens cleaner

The player's pickup lens should not become dirty in normal use, but if for some reason it should malfunction due to soiling, contact your nearest PIONEER authorized service center. Lens cleaners are commercially available, but special care should be exercised in their use since some may cause damage to the lens.

#### Condensation

Moisture may form in the operating section of the player if the player is brought from cool surroundings into a warm room or if the temperature of the room rises suddenly. When this happens, the player's performance will be impaired.

To prevent this, let the player stand in its new surroundings for about an hour before switching it on, or make sure that the room temperature rises gradually. Condensation may also form during the summer if the

player is exposed to the breeze from an air conditioner. In such cases, change the location of the player.



#### Switch POWER to STANDBY when not using the unit

Depending on the strength of the TV or radio broadcast signal, having the TV or radio on while power to the unit is on may result in stripes on the TV screen or noise. However, this is not a malfunction of this unit or the TV or radio. In such a case, switch the power of the unit to



#### Power-cord caution

standby.

Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Do not place the unit, a piece of furniture, etc., on the power cord, or pinch the cord. Never make a knot in the cord or tie it with other cords. The power cords should be routed in such a way that they are not likely to be stepped on. A damaged power cord can cause a fire or give you an electrical shock. Check the power cord once in a while. When you find it damaged, ask your nearest PIONEER authorized service center or your dealer for a replacement.

#### Cleaning the player

To clean the PLAYER, wipe with a soft, dry cloth. For stubborn dirt, wet a soft cloth with a mild detergent solution made by diluting one part detergent to 5 or 6 parts water, wring well, then wipe off the dirt. Also use a dry cloth to wipe the surface dry. Do not use volatile liquids such as benzene and thinner which are harmful to the unit

#### Notes on using optical cables

- Do not route cords around sharp angles. When storing, wind the cords so that they have a diameter of at least 15 cm (6 in.).
- When connecting, push all the way into the terminal.
- Do not use cords with a length of over 3 m.
- If moisture or dust has collected on the plug, wipe it with a soft cloth before connecting.



#### Troubleshooting

Incorrect operations are often mistaken for trouble and malfunctions. If you think that there is something wrong with this component, check the points below. Sometimes the trouble may lie in another component. Inspect the other components and electrical appliances being used. If the trouble cannot be rectified even after exercising the checks listed below, ask your nearest PIONEER authorized service center or your dealer to carry out repair work.

#### The disc table comes back out automatically, shortly after the disc table is closed.

The disc is dirty or warped.

→ Refer to 'Disc Care' (page 57).

The disc is not placed properly on the disc table.

→ Use the disc table guide to align the disc (page 20).

Region number does not conform with this unit.

If the region number on the disc does not match the number on the player, the disc cannot be used (page 61).

There is condensation on the operating section of the

Allow time for condensation to evaporate. If player is near an air conditioning unit, you should move the player (page 58).

#### Playback is not possible.

The disc has been loaded upside down.

→ Check that the disc has been loaded with the label side facing up.

#### 🦠 mark appears on screen.

The selected function does not operate for that disc.

#### 隆 mark appears on screen.

The operation is prohibited by the player.

#### Picture playback stops and the operation buttons cannot be used.

Player malfunctions.

Stop disc playback (press **STOP** ■), then start playback again.

#### New settings made in the Setup screen menus while a disc is playing are ineffective.

Some settings can be changed while a disc is playing, but are not effective. This is not a malfunction.

- Make the same setting when the player is stopped.
- Stop disc playback (press **STOP** ■), then start playback again. When playback is resumed, the new settings should be in effect. Please note that making settings in the Setup screen menus may cancel the resume function.

#### When making changes in the Setup screen menus, ייס is displayed.

There is a Video CD or CD loaded in the player and the setting that was changed only applies to DVD performance.

The setting will be effective the next time a DVD is loaded.

#### Settings are canceled.

When the power is turned off by power failure or by unplugging the power cord, settings will be canceled.

→ Before unplugging the power cord, press ♂ on the remote control checking that "--OFF--" disappears in the display (Taiwan model). Additionally, press POWER on the front panel to turn the player off (other models).

#### No picture.

Connection is incorrect.

→ Check that cord connections are correct and that plugs are firmly connected.

Operation (settings) of TV or AV amplifier is not appropriate.

→ Be sure that your TV, receiver, or amplifier is set up to view DVD playback.

#### The screen is stretched or aspect does not change.

The multi aspect setting is not appropriate.

→ Change the aspect setting in the [TV Screen] setting in the Setup screen Video menu to the screen type most appropriate to the TV or monitor you are using (page 29).

### The screen is suddenly squeezed when the Setup screen is opened.

If the Setup screen is opened during playback of a DVD being viewed in the letter box format, the screen may switch to the wide screen format.

→ This is not a malfunction. The screen will return to normal when the Setup screen is closed.

#### Picture disturbance during playback or dark.

This is not a malfunction.

→ This player is compatible with Macro-Vision System copy guard. Some discs include a copy prevention signal, and when this type of disc is played back, stripes etc., may appear on some sections of the picture depending on the TV.

When using a component video connection, if progressive scan output is selected with a TV that is not compatible with progressive scan video, you will not be able to see any picture. To, remedy this, do one of the following:

→ Set the rear panel **COMPONENT VIDEO OUT** switch to **525i (480i)**. (This overrides the Setup menu setting.)

### When recorded on a VCR or passed through an AV selector, there is disturbance in the playback picture.

This is not a malfunction.

→ Due to the player's copy protection circuits, connection of this device through a VCR or an AV selector may prevent recording or cause picture problems.

#### Remote control operation is not possible.

The rear panel control input jack on the player is being used.

→ Point the remote control at the component that the player is connected to (page 16).

The remote control is too far from the player, or the angle with the remote sensor is too wide.

→ Be sure to operate the remote from a location within its operating range (page 7).

The batteries are exhausted.

Replace the exhausted batteries with all new batteries (page 7).

#### Audio is not output or is distorted.

The Setup screen **Audio 1** menu [96 kHz PCM Out] setting is set to [96 kHz]. Digital output is prohibited on some discs.

→ Be sure to make analog audio connections as well as digital connections (page 14).

The disc is dirty.

→ Refer to 'Disc Care' (page 57).

The connection plugs are not inserted fully into the terminals or are not connected.

→ Check that all connection plugs are firmly inserted.

The connection plug or terminal is dirty.

→ Check that the plugs and terminals are wiped clean of dirt, etc.

Audio cable connection is wrong.

→ Check to make sure that the audio cables are connected correctly (page 13).

Connection is made to the stereo amplifier's PHONO input terminal.

→ Change connection to any input terminal except PHONO.

The pause mode is engaged.

→ Press PLAY ➤ or PAUSE II to exit the pause mode.

Stereo amplifier operation is incorrect.

→ Check input (CD, AUX, etc.) selector to determine if it is selected for DVD playback.

The DVD or CD is recorded in DTS audio.

→ DTS audio is only output from the digital output jacks. Connect the digital output on the player to the digital input on a receiver or amplifier with a built in DTS decoder to hear DTS audio.

#### Noticeable difference in DVD and CD volume.

DVDs and CDs use different recording methods.

→ This is not a malfunction.

#### Caution

Static electricity or other external influence may cause malfunctioning of this unit. In this case, unplugging the power cord and then re-plugging it in will usually reset the unit for proper operation. If this does not correct the problem, please consult your nearest PIONEER service center.

#### **Terms**

#### Aspect ratio

Aspect ratio refers to the length to height ratio of TV screens. The ratio of a standard TV is 4:3, while the ratio of a high-definition or wide TV is 16:9. The latter allows you to enjoy a picture with a wider perspective.

#### Chapter number

Chapter numbers are the numbers assigned to sections of a title on the disc, similar to chapters in a book. If the disc includes chapter numbers, you can locate the section you want very quickly using search and other functions.

#### Component (color difference) video output

The color signal of the TV is divided into the luminance (Y) signal and the color ( $P_{\rm B}$  and  $P_{\rm R}$ ) signals and then output. In this way mutual interference of each signal is avoided. On a TV with component input jacks, these signals are synthesized to produce the picture.

#### Condition memory

"Condition" refers to the various mode settings, etc. On this player, various conditions, such as those set during playback, can be memorized. This function allows you to play back the same disc at any time without having to redo your preferred settings.

#### **Digital bitstream**

The bitstream does not refer to the audio signal, but rather to the digital data that, once converted, becomes the audio signal. The player outputs digital bitstreams via the digital optical or digital coaxial output. If the bitstream cannot be decoded by the connected AV amplifier etc., digital noise is produced. Digital bitstream formats compatible with different entertainment systems can be selected in the Setup screen **Audio 1** menu.

#### **Digital output (Coaxial)**

Output of the digital audio signal is transmitted electronically using a coaxial cable. Because the signal being transmitted is digital, connection must be made to the coaxial digital input of another component. Noise will be output if connected to the analog audio inputs as the digital signal cannot be decoded.

#### Digital output (Optical)

Normally, audio is converted to an electric signal and transmitted through an electric wire from the player to the amplifier, etc. Changing this signal to a digital signal and transmitting it through an fiber-optic cable is called optical digital output. Similarly, optical digital input receives digital signals from external units such as an AV amplifier or receiver.

#### **Dolby Digital**

Using a maximum of 5.1 channels of audio, this high quality surround system is used in many of the finer movie theaters around the world.



#### **DTS**

DTS stands for Digital Theater System. DTS is a surround system different from Dolby Digital that has become a popular surround sound format for movies, as well as CDs.



In order to enjoy the benefits of DTS encoded discs, the digital output jack (either coaxial or optical) of this player needs to be connected to an AV amplifier or receiver or to a DTS decoder to be able to enjoy the surround sound of DTS audio. DTS audio is not output from the analog audio outputs.

#### Dynamic range

Dynamic range refers to the difference between the maximum and minimum levels of the audio soundtrack as measured in decibels (dB).

Compressing the dynamic range raises the minimum signal level and lowers the maximum signal level. This allows you to hear voices and other low level audio signals clearly while lowering strong audio signals like the sound of explosions.

#### Interlaced video

A method of displaying a picture in which odd-numbered lines are updated in one pass, then even-numbered lines updated in the next. See also Progressive scan video.

#### **MPEG**

Short for Moving Picture Experts Group. This is an international standard for compression of moving images. On some DVDs, digital audio has been compressed and recorded in this format.

#### Multi-angle

When you watch a TV program, you are watching the image filmed through the TV camera. Because of this, the picture is displayed on your TV from the viewpoint of the TV camera's position. In a TV studio, the image is filmed by many cameras at the same time, and one of those images is selected by the program director and transmitted to your TV. If all the filmed images were transmitted to your TV you would be able to select the camera image you want. Some DVD discs are recorded with the angles of more than one camera used for filming, and these can be selected using this player. These types of discs are called multi-angle discs.

#### **Parental lock level**

This function was suggested by parents concerned about what type of media their children were able to watch. Parental lock restrictions are restrictions incorporated into titles which include scenes that parents may not wish their children to view.

#### **PCM**

PCM stands for Pulse Code Modulation and is digital audio. The digital audio of CDs is PCM. This player also has a function that converts Dolby Digital and MPEG digital bitstreams into PCM to enable you to listen to quality digital sound even without a special decoder.

#### Playback Control (PBC)

This refers to signals recorded on a Video CD (Version 2.0) enabling playback control.

You can use menus recorded on discs with PBC for easy, interactive search for desired scenes, and playback.

You can also enjoy viewing high-resolution/standard resolution still images.

#### Progressive scan video

Also called non-interlaced video, this method of displaying a picture updates all the lines in one pass, resulting in a more stable, flicker-free image than interlaced video (for a given scanning rate). See also Interlaced video.

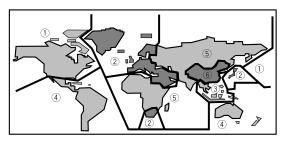
#### **PureCinema**

Video on a DVD discs may be either video material (originally shot on video) or film material (originally shot on film). Video material has a frame rate of 30 frames/sec., compared with 24 frames/sec. for film. This player converts film material to 60 frames/sec. (in progressive scan mode). PureCinema adjusts the picture so that it matches more closely the picture quality of a cinema screen.

You can see whether video on a DVD disc is film or video material by displaying the video transmission rate. If a hash mark (#) appears above the transmission rate display, it is film material.

#### Regional restriction codes (region number)

Regional restriction codes are built in to DVD players and DVD discs for each sales region. If the regional code of the DVD player does not match one of the regional codes of the DVD disc, playback is not possible. The region number can be found on the rear panel of the DVD player. The illustration below shows the regions and corresponding region numbers.



#### **Subtitle**

Subtitles are language titles superimposed on movies, or other media. Up to 32 different subtitle languages can be recorded on a DVD disc. The subtitle function can be used to select the language of your choice.

#### S-video

Connecting the S-video output on the player to a TV or monitor with S-video input via an S-video cable produces clearer picture reproduction by sending separate signals for the luminance and the color. These signals are then combined by the television to produce a better quality picture.

#### TruSurround

TruSurround is a simulated surround system which produces a surround sound effect from stereo speakers.



#### Virtual Dolby Digital

Virtual Dolby Digital uses Dolby Digital multichannel audio sources to create a realistic surround sound effect from stereo speakers.

# **Specifications**

System DVD system and Compact Disc digital audio system
Power requirements
Taiwan model AC 110 V, 60 Hz
Other models AC 110~127 V/220~240 V, 50/60 Hz
Power consumption
Taiwan model
Other models
Power consumption in standby modeless than 1 W
Weight
Taiwan model
Other models
Dimensions (Not including protruding cables, etc.)
Operating temperature +5°C to +35°C (+36°F to +96°F)
Operating humidity 5% to 85% (no condensation)
S-Video output (2 individual outputs)
Y (luminance) - Output level
C (color) - Output level
Jacks S-VIDEO jack
Video output (2 individual outputs)
Output level
Jacks RCA jack
Component video output
Component video output (Y. PB. PB)
(Y, P <sub>B</sub> , P <sub>R</sub> )
(Y, P <sub>B</sub> , P <sub>R</sub> ) Output level
(Y, P <sub>B</sub> , P <sub>R</sub> )
$(Y, P_B, P_R) \\ \text{Output level} \\ P_B, P_R: 0.7 \text{ Vp-p } (75 \ \Omega) \\ \text{Jacks} \\ \text{RCA jacks}$
$(Y,\ P_B,\ P_R)$ Output level
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
(Y, P <sub>B</sub> , P <sub>R</sub> )  Output level
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(Y, P <sub>B</sub> , P <sub>R</sub> )  Output level
$(Y, P_B, P_R) \\ \text{Output level} \\ \qquad $
$(Y, P_B, P_R) \\ \text{Output level} \\ \text{PB, PR: } 0.7 \text{ Vp-p } (75 \ \Omega) \\ \text{Jacks} \\ \text{D2 video output} \\ \text{Output level} \\ \text{Output level} \\ \text{PB, PR: } 0.7 \text{ Vp-p } (75 \ \Omega) \\ \text{PB, PR: } 0.7 \text{ Vp-p } (75 \ \Omega) \\ \text{PB, PR: } 0.7 \text{ Vp-p } (75 \ \Omega) \\ \text{Jacks} \\ \text{D terminal} \\ \text{Audio output (2 individual outputs)} \\ \text{Output level} \\ \text{During audio output} \\ \text{200 mVrms } (1 \text{ kHz, } -20 \text{ dB}) \\ \text{During audio output} \\ \text{Output level} \\ \text{During audio output} \\ Mathematical part of the properties of the$
(Y, P <sub>B</sub> , P <sub>R</sub> )  Output level
$(Y, P_B, P_R) \\ \text{Output level} \\ \text{PB, PR: } 0.7 \text{ Vp-p } (75 \ \Omega) \\ \text{Jacks} \\ \text{D2 video output} \\ \text{Output level} \\ \text{Output level} \\ \text{PB, PR: } 0.7 \text{ Vp-p } (75 \ \Omega) \\ \text{PB, PR: } 0.7 \text{ Vp-p } (75 \ \Omega) \\ \text{PB, PR: } 0.7 \text{ Vp-p } (75 \ \Omega) \\ \text{Jacks} \\ \text{D terminal} \\ \text{Audio output (2 individual outputs)} \\ \text{Output level} \\ \text{During audio output} \\ \text{200 mVrms } (1 \text{ kHz, } -20 \text{ dB}) \\ \text{During audio output} \\ \text{Output level} \\ \text{During audio output} \\ Mathematical part of the properties of the$
$(Y, P_B, P_R) \\ \text{Output level} \\ \text{P}_B, P_R: 0.7 \text{ Vp-p } (75 \ \Omega) \\ \text{P}_B, P_R: 0.7 \text{ Vp-p } (75 \ \Omega) \\ \text{Acks} \\ \text{D2 video output} \\ \text{Output level} \\ \text{Output level} \\ \text{P}_B, P_R: 0.7 \text{ Vp-p } (75 \ \Omega) \\ \text{P}_B, P_R: 0.7 \text{ Vp-p } (75 \ \Omega) \\ \text{Jacks} \\ \text{D terminal} \\ \text{Audio output } (2 \text{ individual outputs}) \\ \text{Output level} \\ \text{During audio output} \\ \text{During audio output} \\ \text{During audio output} \\ \text{Dacks} \\ \text{Number of channels} \\ \text{Acks} \\ \text{RCA jacks} \\ \text{RCA jacks} \\ \text{RCA jacks} \\ \text{P}_B, P_R: 0.7 \text{ Vp-p } (75 \ \Omega) \\ \text{P}_B, P_R: 0.$
(Y, P <sub>B</sub> , P <sub>R</sub> )  Output level
(Y, P <sub>B</sub> , P <sub>R</sub> )  Output level
(Y, P <sub>B</sub> , P <sub>R</sub> )  Output level
(Y, P <sub>B</sub> , P <sub>R</sub> )  Output level
(Y, P <sub>B</sub> , P <sub>R</sub> )  Output level
(Y, PB, PR)  Output level

Digital output         Optical digital output       Optical digital jack         Coaxial digital output       RCA jack
Other terminals
CONTROL IN Minijack (3.5 ø)
CONTROL OUT Minijack (3.5 ø)
Accessories
Audio cord1
Video cord1
Power cord1
Remote control unit1
AA (R6P) dry cell batteries2
Operating Instructions1
Note

The specifications and design of this product are subject to

change without notice, due to improvement.



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<00G00ZF0D01> Printed in Japan <VRB1255-A>